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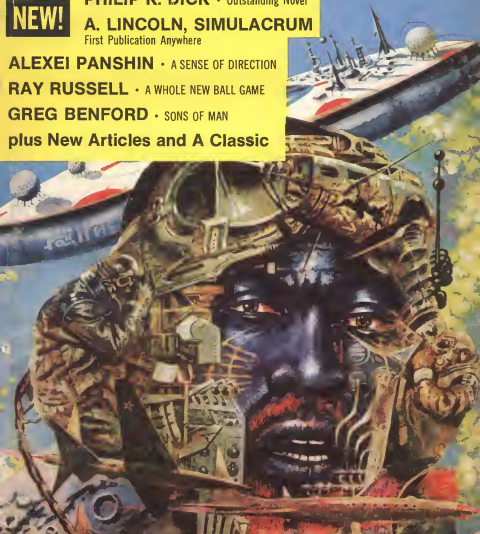
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NOVEMBER, 1969 Vol. 43, No. 4

stories

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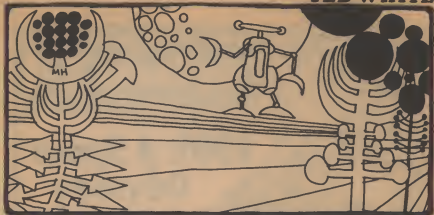


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EDITORIAL

As I begin writing this editorial, I am beset with a feeling that comes suspiciously close to what I have always considered to be a feeling of smug satisfaction. You have only to page through the contents of this issue of **AMAZING** to understand my reasons—and they are probably evident from a look at the cover alone.

I began working on this magazine (and her sister, **FANTASTIC**) at the close of October, 1968. It is now mid-June, 1969 as I write this. And that short period of time—little over half a year—has witnessed a small revolution in these pages.

This issue you paid ten cents more than you had for past issues. But this issue offers you a wholly new **AMAZING STORIES**. Beginning this issue, our old policy of reprints has been thrown out the window. Beginning this issue we have — as Ray Russell so providently guessed in the title of his story herein—a whole new ball game. And a much better one.

There were a number of reasons for this policy change, and not the least

was financial, but I can tell you that it has been what I have worked toward since I joined the magazines, and although I cannot truly say it was a result of my actions alone, I can say it makes me damned happy.

At the present **AMAZING STORIES** contains 70,000 words of new material—a complete magazine's worth, and more actual wordage right there than several of our 60¢ competitors can offer—*plus* a ten to fifteen-thousand-word classic. The total package is about 85,000 words—considerably more than any other sf magazine can boast.

We've been inching towards this goal for the past several issues, but now it is definite and specific. We will be publishing one, and *only* one classic story in each issue, and it will be a *bonus* to the fully new contents of the magazine.

Beginning this issue, we also start a new 70,000-word serial by Philip K. Dick, "A. Lincoln, Simulacrum." As continues to be our policy, this novel will appear in only two instalments, and is totally uncut. (As a matter of fact,

it has been slightly revised and expanded for publication here.) I've been a fan of Phil's for some years now, and the publication of his novel here is something of a personal kick. Anyone who has read my 1965 novel, *Android Avenger*, will remember that I borrowed from Phil's *Three Stigmata of Palmer Eldritch* the notion of a talking suitcase; as a matter of fact, while writing that book I hit a tough spot and in discussing it with a friend I asked myself, "What would Phil Dick do in a spot like this?" The answer, as I saw it, was the solution to my own problem.

Summer of that year, 1965, I was on the West Coast and managed to steal a few hours to visit Phil at the home he had then in Oakland. He joshed me a bit about my talking suitcase. "What are you going to take next, Ted!" he asked me. "I'm thinking of your 'con-apt,'" I said, mostly on the spur of the moment. Some years since then I found myself using "aprooms" in a couple of novels. It happens that way.

At that same meeting in 1965 I showed Phil a photo of myself which, I thought, made me look something like him. It was a candid, and I was in a "Phil Dick pose" of amused contemplation. I was wearing a full beard then, and so was he. The dark-rimmed glasses were about the only other points of similarity, but there was something about the picture that looked like Phil.

"Gosh, Ted," he said, "could I have that? I mean, is it a spare? Do you have more?" I told him sure, on both counts. "The reason I ask," he said, eyes twinkling, "is that Scott Meredith, my agent, asked me for a picture of myself for the British Penguin edition of *Man in a High Castle*, and I think it would be an interesting jape to send them this pic-

ture of you." Much amused at the notion, since I had myself worked a short time for the Meredith Agency—sans beard—I told him I didn't mind, and after repeating the joke a few times, I forgot about it.

We visited Phil again, in 1966, and spent a pleasant day out at his water-side retreat in San Rafael, but both of us had forgotten the picture incident, and it didn't occur to me again until we were talking one evening at the Baycon last year in Berkeley. "What ever happened to that picture of me!" I asked. "They never really used it, did they?"

Phil smote his brow. "They did. They certainly did. You mean you never saw it?" I said I hadn't. "Well, I have a couple of copies at home and I'll certainly bring you one tomorrow." And he did. There was my picture hogging something like a third of the space on the back cover of his book. I kept staring at it with great bemusement. I showed it to friends and enjoyed their double-takes. "Uhh, that's *you*, isn't it Ted?" And I'd smile and look mysterious about it.

So here's a chance to say, "Thanks, Phil," for the chance to associate myself, albeit deceitfully, with one of his best books.

Even if I had never met Phil, had never read him before, I'd be damned pleased to see the publication here of "A. Lincoln, Simulacrum," about which Phil told me, "I put a lot of myself into this one—I really sweated into it." It's more of a novel of character than any previous Philip K. Dick novel, and in writing and scene construction it approaches the so-called "mainstream" novel. It is also something of a "root" novel, planting as it does in 1981 many

(Continued on page 141)

Philip K. Dick's first novel was Solar Lottery (Ace, 1955); since then he has published at least two dozen more including the Hugo-winning The Man in the High Castle and that enigmatic classic, The Three Stigmata of Palmer Eldritch. Each of his works has been unusually inventive in detail and diversely peopled; taken as a whole they have woven the rich tapestry of a strange and not-entirely-pleasant future—a world in which one cannot tell the simulacra from the humans, and neither from drug-induced hallucinations; a world of con-apts and paralyzed psychokinetic pianists and classical-jug musicians; a world of people beset by problems from both within and without, but who nevertheless struggle gamely onward towards a glimpse of hope or the hope of a glimpse of hope...

This time Philip Dick treats us to something a little different. For the first time he has told his novel in the first-person, from a single viewpoint. And for the first time he has ventured only two decades into our future, to show us the terrible roots to his worlds of tomorrow, the dawning age of the simulacra, and—

A. LINCOLN, SIMULACRUM

PHILIP K. DICK

First of two Parts

Illustrated by MICHAEL HINGE

Our sales technique was perfected in the early 1970s. First we put an ad in a local newspaper, in the classified.

Spinet piano, also electronic organ, repossessed, in perfect condition, SACRIFICE. Cash or good credit

risk wanted in this area, to take over payments rather than transport back to Oregon. Contact Frauenzimmer Piano Company, Mr. Rock Credit Manager, Ontario, Ore.

For years we've run this ad in newspapers in one town after another, all up and down the western states and as far

inland as Colorado. The whole approach developed on a scientific, systematic basis; we use maps, and sweep along so that no town goes untouched. We own four turbine-powered trucks, out on the road constantly, one man to a truck.

Anyhow, we place the ad, say the San Rafael Independent-Journal, and soon letters start arriving at our office in Ontario, Oregon, where my partner Maury Rock takes care of all that. He sorts the letters and compiles lists, and then when he has enough contacts in a particular area, say around San Rafael, he night-wires the truck. Suppose it's Fred down there in Marin County. When Fred gets the wire he brings out his own map and lists the calls in proper sequence. And then he finds a pay phone and telephones the first prospect.

Meanwhile, Maury has airmailed an answer to each person who's written in response to the ad.

Dear Mr. So-and-so:

We were gratified to receive your response to our notice in the San Rafael Independent-Journal. The man who is handling this matter has been away from the office for a few days now, so we've decided to forward to him your name and address with the request that he contact you and provide you with all the details.

The letter drones on, but for several years now it has done a good job for the company. However, of late, sales of the electronic organs have fallen off. For instance, in the Vallejo area we sold forty spinets not long ago, and not one single organ.

Now, this enormous balance in favor of the spinet over the electronic organ,



in terms of sales, led to an exchange between I and my partner, Maury Rock; it was heated, too.

I got to Ontario, Oregon late, having been down south around Santa Monica discussing matters with certain do-gooders there who had invited law-enforcement officials in to scan our enterprise and method of operating . . . a gratuitous action which led to nothing, of course, since we're operating strictly legally.

Ontario isn't my hometown, or anybody else's. I hail from Wichita Falls, Kansas, and when I was high school age I moved to Denver and then to Boise, Idaho. In some respects Ontario is a suburb of Boise; it's near the Idaho border—you go across a long metal bridge—and it's flat land, there, where they farm. The forests of eastern Oregon don't begin that far inland. The biggest industry is the Ore-Ida potato patty factory, especially its electronics division, and then there're a whole lot of Japanese farmers who were shuffled back that way during World War Two and who grow onions or something. The air is dry, real estate is cheap, people do their big shopping in Boise; the latter is a big town which I don't like because you can't get decent Chinese food there. It's near the old Oregon Trail, and the railroad goes through it on its way to Cheyenne.

Our office is located in a brick building in downtown Ontario across from a hardware store. We've got root iris growing around our building. The colors of the iris look good when you come driving up the desert route from California and Nevada.

So anyhow I parked my dusty Chevrolet Magic Fire turbine convertible and crossed the sidewalk to our building and our sign:

MASA ASSOCIATES

MASA stands for MULTIPLEX ACOUSTICAL SYSTEM OF AMERICA, a made-up electronics type name which we developed due to our electronic organ factory, which, due to my family ties, I'm deeply involved with. It was Maury who came up with Frauentzimmer Piano Company, since as a name it fitted our trucking operation better. Frauentzimmer is Maury's original old-country name, Rock being made-up, too. My real name is as I give it: Louis Rosen, which is German for roses. One day I asked Maury what Frauentzimmer meant, and he said it means womankind. I asked where he specifically got the name Rock.

"I closed my eyes and touched a volume of the encyclopedia, and it said ROCK TO SUBUD."

"You made a mistake," I told him. "You should have called yourself Maury Subud."

The downstairs door of our building dates back to 1965 and ought to be replaced, but we just don't have the funds. I pushed the door open, it's massive and heavy but swings nicely, and walked to the elevator, one of those old automatic affairs. A minute later I was upstairs stepping out in our offices. The fellows were talking and drinking loudly.

"Time has passed us by," Maury said at once to me. "Our electronic organ is obsolete."

"You're wrong," I said. "The trend is actually *toward* the electronic organ because that's the way America is going in its space exploration: electronic. In ten years we won't sell one spinet a day; the spinet will be a relic of the past."

"Louis," Maury said, "please look what our competitors have done. Electronics may be marching forward, but without us. Look at the Hammerstein

Mood Organ. Look at the Waldteufel Euphoria. And tell me why anyone would be content like you merely to bang out music."

Maury is a tall fellow, with the emotional excitability of the hyperthyroid. His hands tend to shake and he digests his food too fast; they're giving him pills, and if those don't work he has to take radioactive iodine someday. If he stood up straight he'd be six three. He's got, or did have once, black hair, very long but thinning, and large eyes, and he always had a sort of disconcerted look, as if things are going all wrong on every side.

"No good musical instrument becomes obsolete," I said. But Maury had a point. What had undone us was the extensive brain-mapping of the mid 1960s and the depth-electrode techniques of Penfield and Jacobson and Olds, especially their discoveries about the mid-brain. The hypothalamus is where the emotions lie, and in developing and marketing our electronic organ we had not taken the hypothalamus into account. The Rosen factory never got in on the transmission of selective-frequency short range shock, which stimulate very specific cells of the mid-brain, and we certainly failed from the start to see how easy—and important—it would be to turn the circuit switches into a keyboard of eighty-eight black and whites.

Like most people, I've dabbled at the keys of a Hammerstein Mood Organ, and I enjoy it. But there's nothing creative about it. True, you can hit on new configurations of brain stimulation, and hence produce entirely new emotions in your head which would never otherwise show up there. You might—theoretically—even hit on the combination that will put you in the state of nirvana. Both the

Hamerstein and Waldteufel corporations have a big prize for that. But that's not music. That's escape. Who wants it?

"I want it," Maury had said back as early as December of 1978. And he had gone out and hired a cashiered electronics engineer of the Federal Space Agency, hoping he could rig up for us a new version of the hypothalamus-stimulation organ.

But Bob Bundy, for all his electronics genius, had no experience with organs. He had designed simulacra circuits for the Government. Simulacra are the synthetic humans which I always thought of as robots; they're used for Lunar exploration, sent up from time to time from the Cape.

Bundy's reasons for leaving the Cape are obscure. He drinks, but that doesn't dim his powers. He wenches. But so do we all. Probably he was dropped because he's a bad security risk; not a Communist—Bundy could never have doped out even the existence of political ideas—but a bad risk in that he appears to have a touch of hebephrenia. In other words, he tends to wander off without notice. His clothes are dirty, his hair uncombed, his chin unshaved, and he won't look you in the eye. He grins inanely. He's what the Federal Bureau of Mental Health psychiatrists call *dilapidated*. If someone asks him a question he can't figure out how to answer it; he has speech blockage. But with his hands—he's damn fine. He can do his job, and well. So the McHeston Act doesn't apply to him.

However, in the many months Bundy had worked for us, I had seen nothing invented. Maury in particular kept busy with him, since I'm out on the road.

"The only reason you stick up for that electric keyboard hawaiian guitar," Maury said to me, "is because your dad

and brother make the things. That's why you can't face the truth."

I answered, "You're using an ad hominum argument."

"Talmud scholarship," Maury retorted. Obviously, he—all of them, in fact—were well-loaded; they had been sopping up the Ancient Age bourbon while I was out on the road driving the long hard haul.

"You want to break up the partnership?" I said. And I was willing to, at that moment, because of Maury's drunken slur at my father and brother and the entire Rosen Electronic Organ Factory at Boise with its seventeen full-time employees.

"I say the news from Vallejo and environs spells the death of our principal product," Maury said. "Even with its six-hundred-thousand possible tone combinations, some never heard by human ears. You're a bug like the rest of your family for those outer-space voodoo noises your electronic dunghheap makes. And you have the nerve to call it a musical instrument. None of you Rosens have an ear. I wouldn't have a Rosen electronic sixteen-hundred-dollar organ in my home if you gave it to me at cost; I'd rather have a set of vibes."

"All right," I yelled, "you're a purist. And it isn't six-hundred-thousand; it's seven-hundred-thousand."

"Those souped-up circuits bloop out one noise and one only," Maury said, "however much it's modified—it's just basically a whistle."

"One can compose on it," I pointed out.

"Compose? It's more like creating remedies for diseases that don't exist, using that thing. I say either burn down the part of your family's factory that makes those things or damn it, Louis,

convert. Convert to something new and useful that mankind can lean on during its painful ascent upward. Do you hear?" He swayed back and forth, jabbing his long finger at me. "We're in the sky, now. To the stars. Man's no longer hidebound. Do you hear?"

"I hear," I said. "But I recall that you and Bob Bundy were supposed to be the ones who were hatching up the new and useful solution to our problems. And that was months ago and nothing's come of it."

"We've got something," Maury said. "And when you see it you'll agree it's oriented toward the future in no uncertain terms."

"Show it to me."

"Okay, we'll take a drive over to the factory. Your dad and your brother Chester should be in on it; it's only fair, since it'll be them who produce it."

Standing with his drink, Bundy grinned at me in his sneaky, indirect fashion. All this inter-personal communication probably made him nervous.

"You guys are going to bring ruin down on us," I told him. "I've got a feeling."

"We face ruin anyhow," Maury said, "if we stick with your Rosen WOLF-GANG MONTEVERDI electronic organ, or whatever the decal is this month your brother Chester's pasting on it."

I had no answer. Gloomily, I fixed myself a drink.

two

The Mark VII Saloon Model Jaguar is an ancient huge white car, a collector's item, with fog lights, a grill like the Rolls, and naturally hand-rubbed walnut, leather seats, and many interior lights. Maury kept his priceless old 1954 Mark

VII in mint condition and tuned perfectly, but we were able to go no faster than ninety miles an hour on the freeway which connects Ontario with Boise.

The languid pace made me restless. "Listen Maury," I said, "I wish you would begin explaining. Bring the future to me right now, like you can in words."

Behind the wheel, Maury smoked away at his Corina Sport cigar, leaned back and said, "What's on the mind of America, these days?"

"Sexuality," I said.

"No."

"Dominating the inner planets of the solar system before Russia can, then."

"No."

"Okay, you tell me."

"The Civil War of 1861."

"Aw chrissakes," I said.

"It's the truth, buddy. This nation is obsessed with the War Between the States. I'll tell you why. It was the only and first national epic in which we Americans participated; that's why." He blew Corina Sport cigar smoke at me. "It matured we Americans."

"It's not on my mind," I said.

"I could stop at a busy intersection of any big downtown city in the U.S. and collar ten citizens, and six of those ten, if asked what was on their mind, would say, 'The U.S. Civil War of 1861.' And I've been working on the implications—the practical side—ever since I figured that out, around six months ago. It has grave meaning for MASA ASSOCIATES, if we want it to, I mean; if we're alert. You know they had that Centennial a decade or so back; recall?"

"Yes," I said. "In 1961."

"And it was a flop. A few souls got out and refought a few battles, but it was nothing. Look in the back seat."

I switched on the interior lights of the

car and twisting around I saw on the back seat a long newspaper-wrapped carton, shaped like a display window dummy, one of those manikins. From the lack of bulge up around the chest I concluded it wasn't a female one.

"So?" I said.

"That's what I've been working on."

"While I've been setting up areas for the trucks!"

"Right," Maury said. "And this, in time, will be so far long remembered over any sales of spinets or electronic organs that it'll make your head swim."

He nodded emphatically. "Now when we get to Boise—listen. I don't want your dad and Chester to give us a hard time. That's why it's necessary to inform you right now. That back there is worth a billion bucks to us or anyone else who happens to find it. I've got a notion to pull off the road and demonstrate it to you, maybe at some lunch counter. Or a gas station, even; any place that's light." Maury seemed very tense and his hands were shaking more than usual.

"Are you sure," I said, "that isn't a Louis Rosen dummy, and you're going to knock me off and have it take my place?"

Maury glanced at me oddly. "Why do you say that? No, that's not it, but by chance you're close, buddy. I can see that our brains still fuse, like they did in the old days, in the early 'seventies when we were new and green and without backing except maybe your dad and that warning-to-all-of-us younger brother of yours. I wonder, why didn't Chester become a large-animal vet like he started out to be? It would have been safer for the rest of us; we would have been spared. But instead a spinet factory in Boise, Idaho. Madness!" He shook his head.

"Your family never even did that," I said. "Never built anything or created anything. Just middlemen, schlock hustlers in the garment industry. I mean, what did they do to set us up in business, like Chester and my dad did? What is that dummy in the back seat? I want to know, and I'm not stopping at any gas station or lunch counter; I've got the distinct intuition that you really do intend to do me in or some such thing. So let's keep driving."

"I can't describe it in words."

"Sure you can. You're an A-one snow-job artist."

"Okay. I'll tell you why that Civil War Centennial failed. Because all the original participants who were willing to fight and lay down their lives and die for the Union, or for the Confederacy, are dead. Nobody lives to be a hundred, or if they do they're good for nothing—they can't fight, they can't handle a rifle. Right?"

I said, "You mean you have a mummy back there, or one of what in the horror movies they call the 'undead'?"

"I'll tell you exactly what I have. Wrapped up in those newspapers in the back seat I have Edwin M. Stanton."

"Who's that?"

"He was Lincoln's Secretary of War."

"Aw!"

"No, it's the truth."

"When did he die?"

"A long time ago."

"That's what I thought."

"Listen," Maury said, "I have an electronic simulacrum back in the back seat, there. I built it, or rather we had Bundy build it. It cost me six thousand dollars but it was worth it. Let's stop at that roadside cafe and gas station up along the road, there, and I'll unwrap it and demonstrate it to you; that's the

only way."

I felt my flesh crawl. "You will indeed."

"Do you think this is just some bagatelle, buddy?"

"No. I think you're absolutely serious."

"I am," Maury said. He began to slow the car and flash the directional signal. "I'm stopping where it says Tommy's Italian Fine Dinners and Lucky Lager Beer."

"And then what? What's a demonstration?"

"We'll unwrap it and have it walk in with us and order a chicken and ham pizza; that's what I mean by a demonstration."

Maury parked the Jaguar and came around to crawl into the back. He began tearing the newspaper from the human-shaped bundle, and sure enough, there presently emerged an elderly-looking gentleman with eyes shut and white beard, wearing archaically-styled clothing, his hands folded over his chest.

"You'll see how convincing this simulacrum is," Maury said, "when it orders its own pizza." He began to tinker with switches which were available at the back of the thing.

All at once the face assumed a grumpy, taciturn expression and it said in a growl, "My friend, remove your fingers from my body, if you will." It pried Maury's hands loose from it, and Maury grinned at me.

"See?" Maury said. The thing had sat up slowly and was in the process of methodically brushing itself off; it had a stern, vengeful look, now, as if it believed we had done it some harm, possibly sapped it and knocked it out, and it was just recovering. I could see that the counter man in Tommy's Italian Fine Dinners would be fooled, all right;

I could see that Maury had made his point already. If I hadn't seen it spring to life I would believe myself it was just a sour elderly gentleman in old-style clothes and a split white beard, brushing itself off with an attitude of outrage.

"I see," I said.

Maury held open the back door of the Jaguar, and the Edwin M. Stanton electronic simulacrum slid over and rose to a standing position in a dignified fashion.

"Does it have any money?" I asked.

"Sure," Maury said. "Don't ask trifling questions; this is the most serious matter you've ever had facing you." As the three of us started across the gravel to the restaurant, Maury went on, "Our entire economic future and that of America's involved in this. Ten years from now you and I could be wealthy, due to this thing, here."

The three of us had a pizza at the restaurant, and the crust was burned at the edges. The Edwin M. Stanton made a noisy scene, shaking its fist at the proprietor, and then after finally paying our bill, we left.

By now we were an hour behind schedule, and I was beginning to wonder if we were going to get to the Rosen factory after all. So I asked Maury to step on it, as we got back into the Jaguar.

"This car'll crack two hundred," Maury said, starting up, "with that new dry rocket fuel they have out."

"Don't take unnecessary chances," the Edwin M. Stanton told him in a sullen voice as the car roared out onto the road. "Unless the possible gains heavily outweigh the odds."

"Same to you," Maury told it.

The Rosen Spinet Piano & Electronic Organ Factory at Boise, Idaho doesn't

attract much notice, since the structure itself, technically called the plant, is a flat, one-story building that looks like a single-layer cake, with a parking lot behind it, a sign over the office made of letters cut from heavy plastic, very modern, with recessed red lights behind. The only windows are in the office.

At this late hour the factory was dark and shut, with no one there. We drove on up into the residential section, then.

"What do you think of this neighborhood?" Maury asked the Edwin M. Stanton.

Seated upright in the back of the Jaguar the thing grunted, "Rather unsavory and unworthy."

"Listen," I said, "my family lives down here near the industrial part of Boise so as to be in easy walking distance from the factory." It made me angry to hear a mere fake criticizing genuine humans, especially a fine person like my dad. And as to my brother—few radiation-mutants ever made the grade in the spinet and electronic organ industry outside of Chester Rosen. *Special birth* persons, as they are called. There is so much discrimination and prejudice in so many fields . . . most professions of high social status are closed to them.

It was always disappointing to the Rosen family that Chester's eyes are set beneath his nose, and his mouth is up where his eyes ought to be. But blame H-bomb testing in the 'fifties and 'sixties for him—and all the others similar to him in the world today. I can remember, as a kid, reading the many medical books on birth defects—the topic has naturally interested many people for a couple of decades, now—and there are some that make Chester nothing at all. One that always threw me into a week-long depression is where the embryo

disintegrates in the womb and is born in pieces, a jaw, an arm, handful of teeth, separate fingers. Like one of those plastic kits out of which boys build a model airplane. Only, the pieces of the embryo don't add up to anything; there's no glue in this world to stick it together.

And there're embryos with hair growing all over them, like a slipper made from yak fur. And one that dries up so that the skin cracks; it looks like it's been maturing outdoors on the backstep in the sun. So lay off Chester.

The Jaguar had halted at the curb before the family house, and there we were. I could see lights on inside the house, in the living room; my mother, father and brother were watching TV.

"Let's send the Edwin M. Stanton up the stairs alone," Maury said. "Have it knock on the door, and we'll sit here in the car and watch."

"My dad'll recognize it as a phony," I said, "a mile away. In fact he'll probably kick it back down the steps, and you'll be out the six hundred it cost you." Or whatever it was Maury had paid for it, and no doubt charged against MASA's assets.

"I'll take the chance," Maury said, holding the back door of the car open so that the contraption could get out. To it he said, "Go up there to where it says 1429 and ring the bell. And when the man comes to the door, you say, 'Now he belongs to the ages.' And then just stand."

"What does that mean?" I said. "What kind of opening remark is that supposed to be?"

"It's Stanton's famous remark that go him into history," Maury said. "When Lincoln died."

"Now he belongs to the ages," the Stanton practiced as it crossed the side-

walk and started up the steps.

"I'll explain to you in due course how the Edwin M. Stanton was constructed," Maury said to me. "How we collected the entire body of data extant pertaining to Stanton and had it transcribed down at UCLA into instruction punch-tape to be fed to the ruling monad that serves the simulacrum as a brain."

"You know what you're doing?" I said, disgusted. "You're wrecking MASA, all this kidding around, this harebrained stuff—I never should have gotten mixed up with you."

"Quiet," Maury said, as the Stanton rang the doorbell.

The front door opened and there stood my father in his trousers, slippers, and the new bathrobe I had given him at Christmas. He was quite an imposing figure, and the Edwin M. Stanton, which had started on its little speech, halted and shifted gears.

"Sir," it finally said, "I have the privilege of knowing your boy Louis."

"Oh yes," my father said. "He's down in Santa Monica right now."

The Edwin M. Stanton did not seem to know what Santa Monica was, and it stood there at a loss. Beside me in the Jaguar, Maury swore with exasperation, but it struck me funny, the simulacrum standing there like some new, no-good salesman, unable to think up anything at all to say and so standing mute.

But it was impressive, the two old gentlemen standing there facing each other, the Stanton with its split white beard, its old-style garments, my father looking not much newer. The meeting of the patriarchs, I thought. Like in the synagogue.

My father at last said to it, "Won't you step inside?" He held the door open, and the thing passed on inside

and out of sight; the door shut, leaving the porch lit up and empty.

"How about that," I said to Maury.

We followed after it. The door being unlocked, we went on inside.

There in the living room sat the Stanton, in the middle of the sofa, its hands on its knees, discoursing with my dad, while Chester and my mother went on watching the TV.

"Dad," I said, "you're wasting your time talking to that thing. You know what it is? A machine Maury threw together in his basement for six bucks."

Both my father and the Edwin M. Stanton paused and glanced at me.

"This nice old man?" my father said, and he got an angry, righteous expression; his brows knitted and he said loudly, "Remember, Louis, that man is a frail reed, the most feeble thing in nature, but goddam it, mein Sohn, a thinking reed. The entire universe doesn't have to arm itself against him; a drop of water can kill him." Pointing his finger at me excitedly, my dad roared on, "But if the entire universe were to crush him, you know what? You know what I say? Man would still be more noble!" He pounded on the arm of his chair for emphasis. "You know why, mein Kind? Because he knows that he dies and I'll tell you something else; he's got the advantage over the goddam universe because it doesn't know a thing of what's going on. And," my dad concluded, calming down a little, "all our dignity consists in just that. I mean, man's little and can't fill time and space, but he sure can make use of the brain God gave him. Like what you call this 'thing,' here. This is no thing. This is ein *Mensch*, a man. Say, I have to tell you a joke." He launched, then, into a joke half in yiddish, half in English.

When it was over we all smiled, although it seemed to me that the Edwin M. Stanton's was somewhat formal, even forced.

Trying to think back to what I had read about Stanton, I recalled that he was considered a pretty harsh guy, both during the Civil War and the Reconstruction afterward, especially when he tangled with Andrew Johnson and tried to get him impeached. He probably did not appreciate my dad's humanitarian-type joke because he got the same stuff from Lincoln all day long during his job. But there was no way to stop my dad anyhow; his own father has been a Spinoza scholar, well known, and although my dad never went beyond the seventh grade himself he had read all sorts of books and documents and corresponded with literary persons throughout the world.

"I'm sorry, Jerome," Maury said to my dad, when there was a pause, "but I'm telling you the truth." Crossing to the Edwin M. Stanton, he reached down and fiddled with it behind the ear.

"Glop," the Stanton said, and then became rigid, as lifeless as a window-store dummy; the light in its eyes expired, its arms paused and stiffened. It was graphic, and I glanced to see how my dad was taking it. Even Chester and my mom looked up from the TV a moment. It really made one pause and consider. If there hadn't been philosophy in the air already that night, this would have started it; we all became solemn. My dad even got up and walked over to inspect the thing first hand.

"Oy gewalt." He shook his head.

"I could turn it back on," Maury offered.

"Nein, das geht mir nicht." My dad returned to his easy chair, made himself

comfortable, and then asked in a resigned, sober voice, "Well, how did the sales at Vallejo go, boys?" As we got ready to answer he brought out an Anthony & Cleopatra cigar, unwrapped it and lit up. It's a fine-quality Havana-filler cigar, with a green outer wrapper, and the odor filled the living room immediately. "Sell lots of organs and AMA-DEUS GLUCK spinets?" He chuckled.

"Jerome," Maury said, "the spinets sold like lemmings, but not one organ moved."

My father frowned.

"We've been involved in a high-level confab on this topic," Maury said, "with certain facts emerging. The Rosen electronic organ—"

"Wait," my dad said. "Not so fast, Maurice. On this side of the Iron Curtain the Rosen organ has no peer." He produced from the coffee table one of those masonite boards on which we have mounted resistors, solar batteries, transistors, wiring and the like, for display. "This demonstrates the workings of the Rosen true electronic organ," he began. "This is the rapid decay circuit, and—"

"Jerome, I know how the organ works. Allow me to make my point."

"Go ahead." My dad put aside the masonite board, but before Maury could speak, he went on, "But if you expect us to abandon the mainstay of our livelihood simply because salesmanship—and I say this knowingly, not without direct experience of my own—when and because salesmanship has deteriorated, and there isn't the will to sell—"

Maury broke in, "Jerome, listen. I'm suggesting expansion."

My dad cocked an eyebrow.

"Now, you Rosens can go on making all the electronic organs you want," Maury said, "but I know they're going to

diminish in sales volume all the time, unique and terrific as they are. What we need is something which is really new; because after all, Hammerstein makes those mood organs and they've gone over good, they've got that market sewed up airtight, so there's no use our trying that. So here it is, my idea."

Reaching up, my father turned on his hearing aid.

"Thank you, Jerome," Maury said. "This Edwin M. Stanton electronic simulacrum. It's as good as if Stanton had been alive here tonight discussing topics with us. What a sales idea that is, for educational purposes, like in the schools. But that's nothing; I had that in mind at first, but here's the authentic deal. Listen. We propose to President Mendoza in our nation's capital that we abolish war and substitute for it a ten-year-spaced-apart centennial of the U.S. Civil War, and what we do is, the Rosen factory supplies all the participants, simulacra—that's the plural, it's a Latin type word—of *everybody*. Lincoln, Stanton, Jeff Davis, Robert E. Lee, Longstreet, and around three million simple ones as soldiers we keep in stock all the time. And we have the battles fought with the participants really killed, these made-to-order simulacra blown to bits, instead of just a grade-B movie type business like a bunch of college kids doing Shakespeare. Do you get my point? You see the scope of this?"

We were all silent. Yes, I thought, there is scope to it.

"We could be as big as General Dynamics in five years," Maury added.

My father eyed him, smoking his A & C. "I don't know, Maurice. I don't know." He shook his head.

"Why not? Tell me, Jerome, what's wrong with it?"

"The times have carried you away, perhaps," my father said in a slow voice tinged with weariness. He sighed. "Or am I getting old?"

"Yeah, you're getting old!" Maury said, very upset and flushed.

"Maybe so, Maurice." My father was silent for a little while and then he drew himself up and said, "No, your idea is too—ambitious, Maurice. We are not that great. We must take care not to reach too high for maybe we will topple, nicht wahr?"

"Don't give me that German foreign language," Maury grumbled. "If you won't approve this . . . I'm too far into it already, I'm sorry but I'm going ahead. I've had a lot of good ideas in the past which we've used and this is the best so far. It is the times, Jerome. We have to *move*."

Sadly, to himself, my father resumed smoking his cigar.

three

Still hoping my father would be won over, Maury left the Stanton—on consignment, so to speak—and we drove back to Ontario. By then it was nearly midnight, and since we both were depressed by my father's weariness and lack of enthusiasm Maury invited me to stay overnight at his house. I was glad to accept; I felt the need of company.

When we arrived we found his daughter Pris, who I had assumed was still back at Kanan Clinic at Kansas City in the custody of the Federal Bureau of Mental Health. Pris, as I knew from what Maury had told me, had been a ward of the Federal Government since her third year in high school; tests administered routinely in the public schools had picked up her "dynamism of difficulty," as the

psychiatrists are calling it now—in the popular vernacular, her schizophrenic condition.

"She'll cheer you up," Maury said, when I hung back. "That's what you and I both need. She's grown a lot since you saw her last; she's no child any more. Come on." He dragged me into the house by one arm.

She was seated on the floor in the living room wearing pink pedal pushers. Her hair was cut short and in the years since I had seen her she had lost weight. Spread around her lay colored tile; she was in the process of cracking the tile into irregular pits with a huge pair of long-handled cutting pliers.

"Come look at the bathroom," she said, hopping up. I followed warily after her.

On the bathroom walls she had sketched all sorts of sea monsters and fish, even a mermaid; she had already partially tiled them with every color imaginable. The mermaid had red tiles for tits, one bright tile in the center of each breast.

The panorama both repelled and interested me.

"Why not have little light bulbs for nipples?" I said. "When someone comes in to use the can and turns on the light the nipples light up and guide him on his way."

No doubt she had gotten into this tiling orgy due to years of occupational therapy at Kansas City; the mental health people were keen on anything creative. The Government has literally tens of thousands of patients in their several clinics throughout the country, all busy weaving or painting or dancing or making jewelry or binding books or sewing costumes for plays. And all the patients are there involuntarily, committed by

law. Like Pris, many of them had been picked up during puberty, which is the time psychosis tends to strike.

Undoubtedly Pris was much better now, or they would not have released her into the outer world. But she still did not look normal or natural to me. As we walked back to the living room together I took a close look at her; I saw a little hard, heart-shaped face, with a widow's crown, black hair, and due to her odd make-up, eyes outlined in black, a Harlequin effect, and almost purple lipstick; the whole color scheme made her appear unreal and doll-like, lost somewhere back behind the mask which she had created out of her face. And the skinniness of her body put the capper on the effect: she looked to me like a dance of death creation animated in some weird way, probably not through the usual assimilation of solid and liquid foods . . . perhaps she chewed only walnut shells. But anyhow, from one standpoint she looked good, although unusual to say the least. For my money, however, she looked less normal than the Stanton.

"Sweet Apple," Maury said to her, "we left the Edwin M. Stanton over at Louis' dad's house."

Glancing up, she said, "Is it off?" Her eyes burned with a wild, intense flame, which both startled and impressed me.

"Pris," I said, "the mental health people broke the mold when they produced you. What an eerie yet fine-looking chick you turned out to be, now that you've grown up and gotten out of there."

"Thanks," she said, with no feeling at all; her tone had, in former times, been totally flat, no matter what the situation, including big crises. And that

was the way with her still.

"Get the bed ready," I said to Maury, "so I can turn in."

Together, he and I unfolded the guest bed in the spare room; we tossed sheets and blankets on it, and a pillow. His daughter made no move to help; she remained in the living room snipping tile.

"How long's she been working on that bathroom mural?" I asked.

"Since she got back from K.C. Which has been quite a while, now. For the first couple of weeks she had to report back to the mental health people in this area. She's not actually out; she's on probation and receiving out-patient therapy. In fact you could say she's on loan to the outside world."

"Is she better or worse?"

"A lot better. I never told you how bad she got, there in high school before they picked it up on their test. We didn't know what was wrong. Frankly, I thank god for the McHeston Act; if they hadn't picked it up, if she had gone on getting sicker, she'd be either a total schizophrenic paranoid or a dilapidated hebephrenic, by now. Permanently institutionalized for sure."

I said, "She looks so strange."

"What do you think of the tiling?"

"It won't increase the value of the house."

Maury bristled. "Sure it will."

Appearing at the door of the spare room, Pris said, "I asked, *is it off?*" She glowered at us as if she had guessed we were discussing her.

"Yes," Maury said, "unless Jerome turned it back on to discourse about Spinoza with it."

"What's it know?" I asked. "Has it got a lot of spare random useless type facts in it? Because if not my dad won't be interested long."

Pris said, "It has, the same facts that the original Edwin M. Stanton had. We researched his life to the nth degree."

I got the two of them out of my bedroom, then took off my clothes and went to bed. Presently I heard Maury say goodnight to his daughter and go off to his own bedroom. And then I heard nothing—except, as I had expected the snap-snap of tile being cut.

For an hour I lay in bed trying to sleep, falling off and then being brought back by the noise. At last I got up, turned on the light, put my clothes back on, smoothed my hair in place, rubbed my eyes, and came out of the spare room. She sat exactly as I had seen her first that evening, yogi-style, now with an enormous heap of broken tile around her.

"I can't sleep with that racket," I told her.

"Too bad." She did not even glance up.

"I'm a guest."

"Go elsewhere."

"I know what using that pliers symbolizes," I told her. "Emasculating thousands upon thousands of males, one after another. Is that why you left Kasanin Clinic? To sit here all night doing this?"

"No. I'm getting a job."

"Doing what? The labor market's glutted."

"I have no fears. There's no one like me in the world. I've already received an offer from a company that handles emigration processing. There's an enormous amount of statistical work involved."

"So it's someone like you," I said, "who'll decide which of us can leave Earth."

"I turned it down. I don't intend to

be just another bureaucrat. Have you ever heard of Sam K. Barrows?"

"Naw," I said. But the name did sound familiar.

"There was an article on him in *Look*. When he was twenty he always rose at five a.m., had a bowl of stewed prunes, ran two miles around the streets of Seattle, then returned to his room to shave and take a cold shower. And then he went off and studied his law books."

"Then he's a lawyer."

"Not any more," Pris said. "Look over in the bookcase. The copy of *Look* is there."

"Why should I care?" I said, but I went to get the magazine.

Sure enough, there on the cover in color was a man labeled:

SAM K. BARROWS, AMERICA'S MOST ENTERPRISING
NEW YOUNG MULTI-MILLIONAIRE.

It was dated June 18, 1981, so it was fairly recent. And sure enough, there came Sam, jogging up one of the waterfront streets of downtown Seattle, in khaki shorts and gray sweatshirt, at what appeared to be sunup, puffing happily, a man with head shining due to being smooth-shaven, his eyes like the dots stuck in a snowman's face: expressionless, tiny. No emotion there; only the lower half of the face seemed to be grinning.

"If you saw him on TV—" Pris said.

"Yeah," I said, "I saw him on TV." I remembered now, because at the time—a year ago—the man had struck me unfavorably. His monotonous way of speaking . . . he had leaned close to the reporter and mumbled at him very rapidly. "Why do you want to work for him?" I asked.

"Sam Barrows," Pris said, "is the

greatest living land speculator in existence. Think about that."

"That's probably because we're running out of land," I said. "All the realtors are going broke because there's nothing to sell. Just people and no place to put them." And then I remembered.

Barrows had solved the real estate speculation problem. In a series of far-reaching legal actions, he had managed to get the United States Government to permit private speculation in land on the other planets. Sam Barrows had single-handedly opened the way for sub-dividers on Luna, Mars and Venus. His name would go down in history forever.

"So that's the man you want to work for," I said. "The man who polluted the untouched other worlds." His salesman sold from offices all over the United States his glowingly-described Lunar lots.

"Polluted untouched other worlds," Pris mimicked. "A slogan of those conservationists."

"But true," I said. "Listen, how are you going to make use of your land, once you've bought it? How do you live on it? No water, no air, no heat, no—"

"That will be provided," Pris said.

"How?"

"That's what makes Barrows the great man he is," Pris said. "His vision. Barrows Enterprises is working day and night—"

"A racket," I broke in.

There was silence, then. A strained silence.

"Have you ever actually spoken to Barrows?" I asked. "It's one thing to have a hero; you're a young girl and it's natural for you to worship a guy who's on the cover of magazines and on TV and he's rich and single-handedly he opened up the Moon to loan sharks and

land speculators. But you were talking about getting a job."

Pris said, "I applied for a job at one of his companies. And I told them I wanted to see him personally."

"They laughed."

"No, they sent me into his office. He sat there and listened to me for a whole minute. Then, of course, he had to take care of other business; they sent me on to the personnel manager's office."

"What did you say to him in your minute?"

"I looked at him. He looked at me. You've never seen him in real life. He's incredibly handsome."

"On television," I said, "he's a lizard."

"I told him that I can screen dead beats. No time-wasters could get past me if I was his secretary. I know how to be tough and yet also I never turn away anyone who matters. You see, I can turn it on and off. Do you comprehend?"

"But can you open letters?" I said.

"They have machines who do that."

"Your father does that. That's Maury's job with us."

"And that's why I'd never work for you," Pris said. "Because you're so pathetically small. You hardly exist. No, I can't open letters. I can't do any routine jobs. I'll tell you what I can do. It was my idea to build the Edwin M. Stanton simulacrum."

I felt a deep unease.

"Maury wouldn't have thought of it," Pris said. "Bundy—he's a genius. He's inspired. But it's idiot savantry that he has; the rest of his brain is totally deteriorated by the hebephrenic process. I designed the Stanton and he built it, and it's a success; you saw it. I don't even want or need the credit; it was fun. Like this." She had resumed her tile-snipping. "Creative work," she said.

"What did Maury do? Tie its shoelaces?"

"Maury was the organizer. He saw to it that we had our supplies."

I had the dreadful feeling that this calm account was god's truth. Naturally, I could check with Maury. And yet—it did not seem to me that this girl even knew how to lie; she was almost the opposite from her father. Perhaps she took after her mother, whom I had never met. They had been divorced, a broken family, long before I met Maury and became his partner.

"How's your out-patient psychoanalysis coming?" I asked her.

"Fine. How's yours?"

"I don't need it," I said.

"That's where you're wrong. You're very sick, just like me." She smiled up at me. "Face facts."

"Would you stop that snap-snapping? So I can go to sleep?"

"No," she answered. "I want to finish the octopus tonight."

"If I don't get sleep," I said, "I'll drop dead."

"So what."

"Please," I said.

"Another two hours," Pris said.

"Are they all like you?" I asked her. "The people who emerge from the Federal clinics? The new young people who get steered back onto course? No wonder we're having trouble selling organs."

"What sort of organs?" Pris said. "Personally I've got all the organs I want."

"Ours are electronic."

"Mine aren't. Mine are flesh and blood."

"So what," I said. "Better they were electronic and you went to bed and let your houseguest sleep."

"You're no guest of mine. Just my

father's. And don't talk to me about going to bed or I'll wreck your life. I'll tell my father you propositioned me, and that'll end MASA ASSOCIATES and your career, and then you'll wish you never saw an organ of any kind, electronic or not. So toddle on to bed, buddy, and be glad you don't have worse troubles than not being able to sleep." And she resumed her snap-snapping.

I stood for a moment, wondering what to do. Finally I turned and went back into the spare room, without having found any rejoinder.

My god, I thought. Beside her, the Stanton contraption is all warmth and friendliness.

And yet, she had no hostility toward me. She had no sense that she had said anything cruel or hard—she simply went on with her work. Nothing had happened, from her standpoint. I didn't matter to her.

If she had really disliked me—but could she do that? Did such a word mean anything in connection with her? Maybe it would be better, I thought as I locked my bedroom door. It would mean something more human, more comprehensible, to be disliked by her. But to be brushed off purposelessly, just so she would not be interfered with, so she could go on and finish her work—as if I were a variety of restraint, of possible interference and nothing more.

She must see only the most meager outer part of people, I decided. Must be aware of them in terms only of their coercive or non-coercive effects on her . . . thinking that, I lay with one ear pressed against the pillow, my arm over the other, dulling the snap-snapping noise, the endless procession of cuttings-off that passed one by one into infinity.

I could see why she felt attracted to

Sam K. Barrows. Birds of a feather, or rather lizards of a scale. On the TV show, and again now, looking at the magazine cover . . . it was as if the brain part of Barrows, the shaved dome of his skull, had been lopped off and then skillfully replaced with some servo-system or some feedback circuit of seleniums and relays, all of which was operated from a distance off. Or operated by Something which sat upstairs there at the controls, pawing at the switches with tiny tricky convulsive motions.

And so odd that this girl had helped create the almost likeable electronic simulacrum, as if on some subconscious level she was aware of the massive deficiency in herself, the emptiness dead center, and was busy compensating for it . . .

The next morning Maury and I had breakfast down the street from the MASA building at a little cafe. As we faced each other across the booth I said,

"Listen, how sick is your daughter right now? If she's still a ward of the mental health people she must still be—"

"A condition like hers can't be cured," Maury said, sipping his orange juice. "It's a life-long process that either moves into less or into more difficult stages."

"Would she still be classified under the McHeston Act as a 'phrenic if they were to administer the Benjamin Proverb Test at this moment to her?"

Maury said, "It wouldn't be the Benjamin Proverb Test; they'd use the Soviet test, that Vigotsky-Luria colored blocks test, on her at this point. You just don't realize how early she branched off from the norm, if you could be said to be part of the 'norm.'"

"In school I passed the Benjamin Proverb Test." That was the *sine qua non* for establishing the norm, ever since 1975, and in some states before that.

"I would say," Maury said, "from what they told me at Kasanin, when I went to pick her up, that right now she wouldn't be classified as a schizophrenic. She was that for only three years, more or less. They've rolled her condition back to before that point, to her level of integration of about her twelfth year. And that's a non-psychotic state and hence it doesn't come in under the McHeston Act . . . so she's free to roam around."

"Then she's a neurotic."

"No, it's what they call *atypical* development or latent or borderline psychosis. It can develop either into a neurosis, the obsessional type, or it can flower into full schizophrenia, which it did in Pris' case in her third year in high school."

While he ate his breakfast Maury told me about her development. Originally she had been a withdrawn child, what they call encapsulated or introverted. She kept to herself, had all sorts of secrets, such as a diary and private spots in the garden. Then, when she was about nine years old she started having fears at night, fears so great that by ten she was up a good deal of the night roaming about the house. When she was eleven she had gotten interested in science; she owned a chemistry set and did nothing after school but fiddle with that—she had few or no friends, and didn't seem to want any.

It was in high school that real trouble had begun. She had become afraid to enter large public buildings, such as classrooms, and even feared the bus. When the doors of the bus closed she thought she was being suffocated. And she couldn't eat in public. Even if one single person was watching her, that was enough, and she had to drag her food off by herself, like a wild animal.

And at the same time she had become compulsively neat. Everything had to be in its exact spot. She'd wander about the house all day, restlessly, making certain everything was clean—she'd wash her hands ten to fifteen times in a row.

"And remember," Maury added, "she was getting very fat. She was hefty when you first met her. Then she started dieting. She starved herself to lose weight. And she's still losing it. She's always avoiding one food after another; she does that even now."

"And it took the Proverb Test to tell you that she was mentally ill?" I said. "With a history like that?"

He shrugged. "We deluded ourselves. We told ourselves she was merely neurotic. Phobias and rituals and the like . . ."

What bothered Maury the most was that his daughter, somewhere along the line, had lost her sense of humor. Instead of being giggly and silly and sloppy as she had once been she had now become as precise as a calculator. And not only that. Once she had cared about animals. And then, during her stay at Kansas City, she had suddenly gotten so she couldn't stand a dog or a cat. She had gone on with her interest in chemistry, however. And that—a profession—seemed to him a good thing.

"Has the out-patient therapy here helped her?"

"It keeps her at a stable level; she doesn't slide back. She still has a strong hypochondriacal trend and she still washes her hands a lot. She'll never stop that. And she's still overprecise and withdrawn; I can tell you what they call it. Schizoid personality. I saw the results of the inkblot test Doctor Horstowski made." He was silent for a time. "That's her out-patient doctor, here in this area, Region Five—counting the way the men-

tal health Bureau counts. Horstowski is supposed to be good, but he's in private practice, so it costs us a hell of a lot."

"Plenty of people are paying for that," I said. "You're not alone, according to the TV ads. What is it, one person out of every four has served time in a Federal Mental Health Clinic?"

"I don't mind the clinic part because that's free; what I object to is this expensive out-patient follow up. It was her idea to come home from Kasanin Clinic, not mine. I keep thinking she's going to go back there, but she threw herself into designing the simulacrum, and when she wasn't doing that she was mosaicing the bathroom walls. She never stops being active. I don't know where she gets the energy."

I said, "When I consider all the people I know who've been victims of mental illness it's amazing. My aunt Gretchen, who's at the Harry Stack Sullivan Clinic at San Diego. My cousin Leo Roggis. My English teacher in high school, Mr. Haskins. The old Italian down the street who was on a pension, George Oliveri. I remember a buddy of mine in the Service, Art Boles; he had 'phrenia and went to the Fromm-Reichmann Clinic at Rochester, New York. There was Alys Johnson, a girl I went with in college; she's at Samuel Anderson Clinic in Area Three, which would be in Baton Rouge, La. And a man I worked for, Ed Yeats; he had 'phrenia that became paranoia. And Waldo Dangerfield, another buddy of mine. Gloria Milstein, a girl I knew who had really enormous breasts like pears; she's god knows where, but she was picked up by a personnel psych test when she was applying for a typing job; the Federal people swooped down and grabbed her—off she went. She was cute. And John Franklin Mann, a used car salesman I

knew; he tested out as a dilapidated 'phrenic and was carted off, probably to Kasanin, because he's got relatives in Missouri. And Marge Morrison, another girl I knew; she had the hebe' version, which always bothers me. She's out again, though; I got a card from her. And Bob Ackers, a roommate I had. And Eddy Weiss—"

Maury had risen to his feet. "We better get going."

Together we left the cafe. "You know this Sam Barrows?" I asked.

"Sure. I mean, not personally; I know him by reputation. He's the darndest fellow. He'll bet on anything. If one of his mistresses—and that's a story in itself—if one of his mistresses dived out of a hotel window he'd bet on which end hit the pavement first, her head or her tail. He's like one of the old-time speculators reborn, one of those captains of finance. Life's a gamble to a guy like that. I admire him."

"So does Pris."

"Admire, hell—adores. She met him. They stared each other down—it was a draw. He galvanized or magentized her or some darn thing. For weeks afterward she could hardly talk."

"Was that when she was job-hunting?"

Maury nodded. "She didn't get the job, but she did get into the sanctum sanctorum. Louis, that guy can scent out possibilities on all sides, opportunities no one else could see in a million years. You ought to dip into *Fortune*, sometime; they did a big write-up on him around ten months ago."

"From what she told me Pris made quite a pitch to him that day."

"She told him she had incredible worth that no one recognized. He was supposed to recognize it, evidently. Anyhow, she said that in his organization, work-

ing for him, she'd rise to the top and be known all over the universe. But otherwise, she'd just go on as she was. She told him she was a gambler, too; she wanted to stake everything on going to work for him. Can you beat that?"

"No," I said. She hadn't told me that part.

After a pause Maury said, "The Edwin M. Stanton was her idea."

Then it was true. That made me feel really bad, to hear that. "And it was her idea that it would be of Stanton?"

"No, it was my idea. She wanted it to look like Sam Barrows. But there wasn't enough data to feed to its ruling monad guidance system, so we got reference books on historical characters. And I was always interested in the Civil War; it was a hobby of mine years ago. So that settled that."

"I see," I said.

"She still has Barrows on her mind all the time. It's what her analyst calls an obsessive idea."

We walked on toward the office of MASA ASSOCIATES.

four

When we entered our office we found my brother Chester on the phone from Boise, reminding us that we had left the Edwin M. Stanton in the family living room, and asking us to pick it up, please.

"Well, we'll try to get out sometime today," I promised him.

Chester said, "It's sitting where you left it. Father turned it on for a few minutes this morning to see if it got the news."

"What news?"

"The morning news. The summary, like David Brinkley."

He meant *gave* the news. So my family had in the meantime decided that I was right; it was a machine after all and not a person.

"Did it?" I asked.

"No," Chester said. "It talked about the unnatural impudence of commanders in the field."

When I had hung up the phone Maury said, "Maybe Pris would get it."

"Does she have a car?" I asked.

"She can take the Jag. Maybe you better go along with her, though, in case there's still a chance your dad's interested."

Later in the day Pris showed up at the office, and soon we were on our way back to Boise.

For the first part of the trip we drove in silence, Pris behind the wheel. All at once she said, "Do you have connections with someone who's interested in the Edwin M. Stanton?" She eyed me.

"No. What a strange question."

"What's your real motive for coming along on this trip? You do have a concealed motive . . . it radiates from every pore of your body. If it were up to me I wouldn't let you within a hundred yards of the Stanton."

As she continued to eye me, I knew I was in for more dissection.

"Why aren't you married?" she asked.

"I don't know."

"Are you a homosexual?"

"No!"

"Did some girl you fell in love with find you too ugly?"

I groaned.

"How old are you?"

That seemed reasonable enough, and yet, in view of the general attitude she held, I was wary of even that. "Ummm," I murmured.

"Forty?"

"No. Thirty-three."

"But your hair is gray on the sides and you have funny-looking snaggle teeth."

I wished I was dead.

"What was your first reaction to the Stanton?" Pris asked.

I said, "I thought, 'What a kindly-looking old gentleman that is there.'"

"You're lying, aren't you?"

"Yes!"

"What did you actually think?"

"I thought, 'What a kindly-looking old gentleman that is there, wrapped up in newspapers.'"

Pris said thoughtfully, "You probably are queer for old men. So your opinion isn't worth anything."

"Listen, Pris, somebody is going to brain you with a tire iron, someday. You understand?"

"You can barely handle your hostility, can you? Is that because you're a failure in your own eyes? Maybe you're being too hard on yourself. Tell me your childhood dreams and goals and I'll tell you if—"

"Not for a billion dollars."

"Are they shameful?" She continued to study me intently. "Did you do shameful sexual things with yourself, like it tells about in the psych books?"

I felt as if I were about to pass out.

"Obviously I hit on a sensitive topic with you," Pris said. "But don't be ashamed. You don't do it any more, do you? I suppose you still might . . . you're not married, and normal sexual outlets are denied you." She pondered that. "I wonder what Sam does, along the sex ling."

"Sam Vogel? Our driver, now in the Reno, Nevada area?"

"No. Sam K. Barrows."

"You're obsessed," I said. "Your thoughts, your speech, your tiling the

bathroom—your involvement in the Stanton.”

“The simulacrum is brilliantly original.”

“What would your analyst say about it?”

“Milt Horstowski? I told him. He already said.”

“Tell me,” I said. “Didn’t he say this is a deranged manic compulsion of some kind?”

“No, he agreed that I should be doing something creative. When I told him about the Stanton he complimented me on it and hoped it would work out.”

“Probably you gave him one hell of a biased account.”

No. I told him the truth.”

“About *refighting the Civil War with robots*?”

“Yes. He said it had flair.”

“Jesus Christ,” I said. “They’re all crazy.”

“All,” Pris said, reaching out and ruffling my hair, “but you, buddy boy. Right?”

I could say nothing.

“You take things so seriously,” Pris drawled. “Relax and enjoy life. You’re an anal type. Duty bound. You ought to let those old sphincter muscles let go for once . . . see how it feels. You want to be bad; that’s the secret desire of the anal type. They feel they must do their duty, though; that’s why they’re so pedantic and given to having doubts all the time. Like this; you have doubts about this.”

“I don’t have doubts. I just have a yawning sense of absolute dread.”

Pris laughed, rumped my hair.

“It’s funny,” I said. “My overwhelming fear.”

“It’s not an overwhelming fear you feel,” Pris said matter-of-factly. “It’s

simply a little bit of natural carnal earthly lust. Some for me. Some for loot. Some for power. Some for fame.” She indicated, with her thumb and first finger, a small amount. “About that much in total. That’s the size of your great big overwhelming emotions.” Lazily, she glanced at me, enjoying herself.

We drove on.

In Boise, at my family’s home, we picked up the simulacrum, re-wrapped it in newspapers, and lugged it to the car. We returned to Ontario and Pris let me off at the office. There was little conversation between us on the return trip; Pris was withdrawn and I smoldered with anxiety and resentment toward her. My attitude seemed to amuse her. I was wise enough, however, to keep my mouth closed.

When I entered the office I found a short, plump, dark-haired woman waiting for me. She wore a heavy coat and carried a briefcase. “Mr. Rosen?”

“Yeah,” I said, wondering if she was a process server.

“I’m Colleen Nild. From Mr. Barrows’ office. Mr. Barrows asked me to drop by here and speak to you, if you have a moment.” She had a low, rather uncertain voice, and looked, I thought, like someone’s niece.

“What does Mr. Barrows want?” I asked guardedly, showing her to a chair. I seated myself facing her.

“Mr. Barrows had me make a carbon of a letter he has prepared for Miss Pris Frauenzimmer, a carbon for you.” She held out three thin sheets, onion-skin, in fact; I saw somewhat blurred, dimmed, but obviously very correctly-typed business correspondence. “You’re the Rosen family from Boise, aren’t you? The people who propose to manufacture the simu-

lacra?"

Scanning the letter, I saw the word Stanton pop up again and again; Barrows was answering a letter from Pris having to do with it. But I could not get the hang of Barrows' thoughts; it was all too diffuse.

Then all at once I got the drift.

Barrows had obviously misunderstood Pris. He thought the idea of refighting the Civil War with electronic simulacra, manufactured at our factory in Boise, was a civic enterprise, a do-gooding patriotic effort along the lines of improving the schools and reclaiming the deserts, not a business proposition at all. That's what she gets. I said to myself. Yes, I was right; Barrows was thanking her for her idea, for thinking of him in connection with it . . . but, he said, he received requests of this sort daily, and already had his hands full with worthy efforts. For instance a good deal of his time was spent in fighting condemnation of a war-time housing tract somewhere in Oregon . . . the letter became so vague, at that point, that I lost the thread completely.

"Can I keep this?" I asked Miss Nild.

"Please do. And if you'd like to comment, I'm sure Mr. Barrows would be interested in anything you have to say."

I said, "How long have you worked for Mr. Barrows?"

"Eight years, Mr. Rosen." She sounded happy about it.

"Is he a billionaire, like the papers say?"

"I suppose so, Mr. Rosen." Her brown eyes twinkled, enlarged by her glasses.

"Does he treat his employees good?"

She smiled without answering.

"What's this housing project, this Green Peach Hat, that Barrows is talking about in the letter?"

"That's a term for Gracious Prospect Heights, one of the greatest multiple-unit housing developments in the Pacific Northwest. Mr. Barrows always calls it that, although originally it was a term of derision. The people who want to tear it down invented the term and Mr. Barrows took it over—the term, I mean—to protect the people who live there, so they won't feel spat upon. They appreciate that. They got up a petition thanking him for his help in blocking condemnation proceedings; there were almost two thousand signatures."

"Then the people who live there don't want it torn down?"

"Oh no. They're fiercely loyal to it. A group of do-gooders have taken it upon themselves to meddle, housewives and some society people who want to increase their own property values. They want to see the land used for a country club or something on that order. Their group is called the Northwest Citizens' Committee for Better Housing. A Mrs. Devorac heads it."

I recalled having read about her in the Oregon papers; she was quite up in the fashionable circles, always involved in causes. Her picture appeared on the first page of section two regularly.

"Why does Mr. Barrows want to save this housing tract?" I asked.

"He is incensed at the idea of American citizens deprived of their rights. Most of them are poorer people. They'd have no place to go. Mr. Barrows understands how they feel because he lived in rooming houses for years . . . you know that his family had no more money than anyone else? That he made his money on his own, through his own hard work and efforts?"

"Yes," I said. She seemed to be waiting for me to go on, so I said, "It's nice

he still is able to identify with the working class, even though he's now a billionaire."

"Since most of Mr. Barrows' money was made in real estate, he has an acute awareness of the problems people face in their struggle to obtain decent housing. To society ladies such as Silvia Devorac, Green Peach Hat is merely an unsightly conglomeration of old buildings; none of them have gone inside—it would never occur to them to do so."

"You know," I said, "hearing this about Mr. Barrows goes a long way to make me feel that our civilization isn't declining."

She smiled her informal, warm smile at me.

"What do you know about this Stanton electronic simulacrum?" I asked her.

"I know that one has been built. Miss Frauenzimmer mentioned that in her communications both by mail and over the phone to Mr. Barrows. I believe Mr. Barrows also told me that Miss Frauenzimmer wanted to put the Stanton electronic simulacrum onto a Greyhound bus and have it ride unaccompanied to Seattle, where Mr. Barrows is currently. That would be her way of demonstrating graphically its ability to merge with humans and be unnoticed."

"Except for its funny split beard and old-fashioned vest."

"I was unaware of those factors."

"Possibly the simulacrum could argue with a cab driver as to the shortest route from the bus terminal to Mr. Barrows' office," I said. "That would be an additional proof of its humanness."

Colleen Nild said, "I'll mention that to Mr. Barrows."

"Do you know the Rosen electronic organ, or possibly our spinet pianos?"

"I'm not sure."

"The Rosen factory at Boise produces the finest electronic chord organ in existence. Far superior to the Hammerstein Mood Organ, which emits a noise nothing more adequate than a modified flute-sound."

"I was unaware of that, too," Miss or Mrs. Nild said. "I'll mention that to Mr. Barrows. He has always been a music lover."

I was still involved in reading Barrows' letter when my partner returned from his mid-day coffee break. I showed it to him.

"Barrows writing to Pris," he said, seating himself to pore over it. "Maybe we're in, Louis. Could it be? I guess it isn't a figment of Pris' mind after all. Gosh, the man's hard to follow; is he saying he is or he isn't interested in the Stanton?"

"Barrows seems to say he's completely tied up right now with a pet project of his own, that housing tract called Green Peach Hat."

"I lived there," Maury said. "In the late 'fifties."

"What's it like?"

"Louis, it's hell. The dump ought to be burned to the ground; only a match—nothing else—would help that place."

"Some do-gooders agree with you."

Maury said in a low, tense voice, "If they want someone to burn it down I'll do it personally for them. You can quote me, too. Sam Barrows owns that place."

"Ah," I said.

"He's making a fortune in rentals off it. Slum rentals is one of the biggest rackets in the world today; you get back like five to six hundred percent return on your investment. Well, I suppose we can't let personal opinion enter into business. Barrows is still a shrewd busi-

nessman and the best person to back the simulacra, even if he is a rich fink. But you say this letter is a rejection of the idea?"

"You could phone him and find out. Pris seems to have phoned him."

Picking up the phone, Maury dialed.

"Wait," I said.

He glared at me.

"I've got an intuition," I said, "of doom."

Into the phone, Maury said, "Mr. Barrows."

I grabbed the phone from him and hung it up.

"You—" He quivered with anger. "What a coward." Lifting the receiver he once more dialed. "Operator, I was cut off." He looked around for the letter; it had Barrows' number on it. I picked up the letter and crumpled it into a ball and tossed it across the room.

Cursing at me he slammed down the receiver.

We faced each other, breathing heavily.

"What's wrong with you?" Maury said.

"I don't think we should get tangled up with a man like that."

"Like what?"

I said, "Whom the gods would destroy they first make mad!"

That shook him. "What do you mean?" he mumbled, tipping his head and regarding me bird-like. "You think I'm batty to call, do you? Ought to be at the funny clinic. Maybe so. But anyhow I intend to." Going past me he fished up the crumpled ball of paper, smoothed it, memorized the number, and returned to the phone. Again he placed the call.

"It's the end of us," I said.

An interval passed. "Hello," Maury said suddenly. "Let me talk to Mr. Barrows, please. This is Maury Rock in

Ontario, Oregon."

Another interval.

"Mr. Barrows! This is Maury Rock."

He got a set grin on his face; he bent over, resting his elbow on his thigh. "I have your letter here, sir, to my daughter, Pris Frauentzimmer . . . regarding our world-shaking invention, the electroic simulacrum, as personified by the charming, old-time characterization of Lincoln's Secretary of War, Edwin McMasters Stanton." A pause in which he gaped at me vacantly. "Are you interested, sir?" Another pause, much longer this time.

You're not going to make the sale, Maury, I said to myself.

"Mr. Barrows," Maury said. "Yes, I see what you mean. That's true, sir. But let me point this out to you, in case you overlooked it."

The conversation rambled on for what seemed an endless time. At last Maury thanked Barrows, said goodbye, and hung up.

"No dice," I said.

He glowered at me wearily. "Wow."

"What did he say?"

"The same as in the letter. He still doesn't see it as a commercial venture. He thinks we're a patriotic organization." He blinked, shook his head wonderingly. "No dice, like you said."

"Too bad."

"Maybe it's for the better," Maury said. But he sounded merely resigned; he did not sound as if he believed it. Someday he would try again. He still hoped.

We were as far apart as ever.

five

During the next two weeks Maury Rock's predictions as to the decline of

the Rosen electronic organ seemed to be borne out. All trucks reported few if any sales of organs. And we noticed that the Hammerstein people had begun to advertise one of their mood organs for less than a thousand dollars. Of course their price did not include shipping charges or the bench. But still—it was bad news for us.

Meanwhile, the Stanton was in and out of our office. Maury had the idea of building a showroom for sidewalk traffic and having the Stanton demonstrate spinets. He got my permission to call in a contractor to remodel the ground floor of the building; the work began, while the Stanton puttered about upstairs, helping Maury with the mail and hearing what it was going to have to do when the showroom had been completed. Maury advanced the suggestion that it shave off its beard, but after an argument between him and the Stanton he withdrew his idea and the Stanton went about as before, with its long white side whiskers.

"Later on," Maury explained to me when the Stanton was not present, "I'm going to have it demonstrate itself. I'm in the process of finalizing on a sales pitch to that effect." He intended, he explained, to feed the pitch into the Stanton's ruling monad brain in the form of punched instruction tape. That way there would be no arguments, as there had been over the whiskers.

All this time Maury was busy concocting a second simulacrum. It was in MASA's truck-repair shop, on one of the workbenches, in the process of being assembled. On Thursday the powers that decreed our new direction permitted me to view it for the first time.

"Who's it going to be?" I asked, studying it with a feeling of gloom. It con-

sisted of no more than a large complex of selenoids, wiring, circuit breakers, and the like, all mounted on aluminum panels. Bundy was busy testing a central monad turret; he had his volt-meter in the midst of the wiring, studying the reading on the dial.

Maury said, "This is Abraham Lincoln."

"You've lost control of your reason."

"Not at all. I want something really big to take to Barrows when I visit him next month."

"Oh I see," I said. "You hadn't told me about that."

"You think I'm going to give up?"

"No," I admitted. "I knew you wouldn't give up; I know you."

"I've got the instinct," Maury said.

The next afternoon, after some gloomy pondering, I looked up Doctor Horstowski in the phonebook. The office of Pris' out-patient psychiatrist was in the better residential section of Boise. I telephoned him and asked for an appointment as soon as possible.

"May I ask who recommended you?" his nurse said.

With distaste I said, "Miss Priscilla Frauenzimmer."

"All right, Mr. Rosen; Doctor Horstowski can see you tomorrow at one-thirty."

Technically, I was supposed to be out on the road, again, setting up communities to receive our trucks. I was supposed to be making maps and inserting ads in newspapers. But ever since Maury's phonecall to Sam Barrows something had been the matter with me.

Perhaps it had to do with my father. Since the day he had set eyes on the Stanton—and found out it was a machine built to resemble a man—he had become progressively more feeble. Instead of going down to the factory every morning

he often remained at home, generally hunched in a chair before the TV; the times I had seen him he had a troubled expression and his faculties seemed clouded.

I mentioned it to Maury.

"Poor old guy," Maury said. "Louis, I hate to say this to you, but Jerome is getting frail."

"I realize that."

"He can't compete much longer."

"What do you suggest I do?"

"Keep him out of the bustle and strife of the market place. Consult with your mother and brother; find out what Jerome has always wanted to do hobby-wise. Maybe carve flying model World War One airplanes, such as the Fokker Triplane or the Spad. You should look into that, Louis, for the old man's sake. Am I right, buddy?"

I nodded.

"It's partly your fault," Maury said. "You haven't cared for him properly. When a man gets his age he needs support. I don't mean financial; I mean—hell, I mean *spiritual*."

The next day I drove to Boise and, at one-twenty, parked before the modern, architect-designed office building of Doctor Horstowski.

When Doctor Horstowski appeared in the hallway to usher me into his office, I found myself facing a man built along the lines of an egg. His body was rounded; his head was rounded; he wore tiny round glasses; there were no straight or broken lines about him, and when he walked he progressed in a flowing smooth motion as if he was rolling. His voice, too, was soft and smooth. And yet, when I entered his office and seated myself and got a closer look, I saw that there was one feature of him which I had not

noticed: he had a tough, harsh-looking nose, as flat and sharp as a parrot's beak. And now that I noticed that, I could hear in his voice a suppressed tearing edge of great harshness.

He seated himself with a pad of lined paper and a pen, crossed his legs, and began to ask me dull, routine questions.

"What did you wish to see me about?"

he asked at last, in a voice barely at the fringe of audibility but at the same time clearly distinct.

"Well, I'm having this problem. I'm a partner in this firm, MASA ASSOCIATES. And I feel that my partner and his daughter are against me and plotting behind my back. Especially I feel they're out to degrade and destroy my family, in particular my elderly father, Jerome, who isn't well enough or strong enough any more to take that sort of thing."

"What 'sort of thing'?"

"This deliberate and ruthless destruction of the Rosen spinet and electronic organ factory and our entire retail system. In favor of a mad, grandiose scheme for saving mankind or defeating the Russians or something like that; I can't make it out what it is, to be honest."

"Why can't you 'make it out'?" His pen scratch-scratched.

"Because it changes from day to day." I paused. The pen paused, too. "It seems to be designed to reduce me to helplessness. And as a result Maury will take over the business and maybe the factory as well. And they're mixed up with an incredibly wealthy and powerful sinister figure, Sam K. Barrows of Seattle, whose picture you possibly saw on the cover of *Look* magazine."

I was silent.

"Go. On." He enunciated as if he were a speech instructor.

"Well, in addition I feel that my part-

ner's daughter, who is the prime mover in all this, is a dangerous ex-psychotic who can only be said to be as hard as iron and utterly without scruples." I looked at the doctor expectantly, but he said nothing and showed no visible reaction. "Pris Frauenzimmer," I said.

He nodded.

"What's your opinion?" I asked.

"Pris," Doctor Horstowski said, sticking his tongue out and down and staring at his notes, "is a dynamic personality."

I waited, but that was all.

"You think it's in my mind?" I demanded.

"What do you think is their *motive* for doing all this?" he asked.

That took me by surprise. "I don't know. Is it my business to figure that out? Hell, they want to peddle the simulacra to Barrows and make a mint; what else? And get a lot of prestige and power, I guess. They have maniacal dreams."

"And you stand in their way."

"Right," I said.

"You have no such dreams."

"I'm a realist. Or at least I try to be. As far as I'm concerned that Stanton—have you seen it?"

"Pris came in here once with it. It sat in the waiting room while she had her hour."

"What did it do?"

"It read *Life* magazine."

"Didn't it make your blood crawl?" I asked.

"I don't think so."

"You weren't frightened to think that those two, Maury and Pris, could dream up something unnatural and dangerous like that?"

Doctor Horstowski shrugged.

"Christ," I said bitterly, "you're insulated. You're in here safe in this office. What do you care what goes on in the

world?"

Doctor Horstowski gave what seemed to me to be a fleeting but smug smile. That made me furious.

"Doctor," I said, "I'll let you in on it. Pris is playing a cruel prank on you. She sent me in here. I'm a simulacrum, like the Stanton. I wasn't supposed to give the show away, but I can't go on with it any longer. I'm just a machine, made out of circuits and relay switches. You see how sinister all this is? She'd do it even to you. What do you say to that?"

Halting in his writing, Doctor Horstowski said, "Did you tell me you're married? If so, what is your wife's name, age, and does she have an occupation? And where born?"

"I'm not married. I used to have a girl friend, an Italian girl who sang in a night club. She was tall and had dark hair. Her name was Lucrezia but she asked us to call her Mimi. Later on she died of t.b. That was after we split up. We used to fight."

The doctor carefully wrote those facts down.

"Aren't you going to answer my question?" I asked.

It was hopeless. The doctor, if he had a reaction to the simulacrum sitting in his office reading *Life*, was not going to reveal it. Or maybe he didn't have one; maybe he didn't care who he found sitting across from him or among his magazines—maybe he had taught himself long ago to accept anyone and anything he found there.

But at least I could get an answer out of him regarding Pris, who I regarded as a worse evil than the simulacra.

"I've got my .45 Service revolver and shells," I said. "That's all I need; the opportunity will take care of itself. It's

just a question of time before she tries the same cruelty on someone else as she did on me. I consider it my sacred task to rub her out—that's god's truth."

Scrutinizing me, Horstowski said, "Your real problem, as you've phrased it—and I believe accurately—is the hostility you feel, a very mute and baffled hostility, seeking an outlet, toward your partner and this eighteen-year-old girl who has difficulties of her own and who is actively seeking solutions in her own way as best she can."

Put like that, it did not sound so good. It was my own feelings which harried me, not the enemy. *There was no enemy*. There was only my own emotional life, suppressed and denied.

"Well, what can you do for me?" I asked.

"I can't make your reality-situation palatable to you. But I can help you comprehend it." He opened a drawer of his desk; I saw boxes and bottles and envelopes of pills, a rat's nest of physician's samples, scattered and heaped. After rooting, Horstowski came up with a small bottle, which he opened. "I can give you these. Take two a day, one when you get up and one on retiring. Hubrizine." He passed me the bottle.

"What's it do?" I put the bottle away in my inside pocket.

"I can explain it to you because you are professionally familiar with the Mood Organ. Hubrizine stimulates the anterior portion of the spetal region of the brain. Stimulation in that area, Mr. Rosen, will bring about greater alertness, plus cheerfulness and a belief that events will work out all right on their own. It compares to this setting on the Hammerstein Mood Organ." He passed me a small glossy folded printed piece of paper; I saw Hammerstein stop-setting indica-

tions on it. "But the effect of the drug is much more intense; as you know, the amplitude of affect-shock produced by the Mood Organ is severely limited by law."

I read the setting critically. By god, when translated into notes it was close to the opening of the Beethoven Sixteenth Quartet. What a vindication for enthusiast of the Beethoven Third Period, I said to myself. Just looked at, the stop-setting numbers made me feel better.

"I can almost hum this drug," I said. "Want me to try?"

"No thank you. Now, you understand that if drug therapy does not avail in your case we can always attempt brain-slicing in the region of the temporal lobes—based, of course, on extensive brain-mapping, which would have to be conducted at U.C. Hospital in San Francisco or Mount Zion; we have no facilities, here. I prefer to avoid that myself if possible, since it often develops that the section of the temporal lobes involved can't be spared. The Government has abandoned that at its clinics, you know."

"I'd rather not be sliced," I agreed. "I've had friends who've had that done . . . but personally it gives me the shivers. Let me ask you this. Do you by any chance have a drug whose setting in terms of the Mood Organ corresponds to portions of the Choral Movement of the Beethoven Ninth?"

"I've never looked into it," Horstowski said.

"On a Mood Organ I'm particularly affected when I play the part where the choir sings, '*Mus' ein Lieber Vater wohnen*,' and then very high up, like angels, the violins and the soprano part of the choir sing as an answer, '*Ubrem Sternenzelt*.'"

"I'm not familiar with it to that extent," Horstowski admitted.

"They're asking whether a Heavenly Father exists, and then very high up they answer, yes, above the realm of stars. That part—if you could find the correspondence in terms of pharmacology, I might benefit enormously."

Doctor Horstowski got out a massive loose-leaf binder and began to thumb through it. "I'm afraid I can't locate a pill corresponding to that. You might consult with the Hammerstein engineers, however."

"Good idea," I said.

"Now, as to your dealings with Pris. I think you're a little strong in your view of her as a menace. After all, you are free not to associate with her *at all*, aren't you?" He eyed me slyly.

"I guess so."

"Pris has challenged you. She's a provocative personality . . . most people who know her, I'd imagine, get to feeling as you do. That's Pris' way of stirring them up, making them react. It is probably allied to her scientific bent . . . it's a form of curiosity; she wants to see what makes people tick." He smiled.

"In this case," I said, "she almost killed the specimen while trying to investigate it."

"Pardon?" He cupped his ear. "Yes, a specimen. She perceives other people sometimes in that aspect. But I wouldn't let that throw me. We live in a society where detachment is almost essential."

While he was saying this, Doctor Horstowski was writing in his appointment book.

"What do you think of," he murmured, "when you think of Pris."

"Milk," I said.

"Milk!" His eyes opened wide. "Interesting. Milk . . ."

"I'm not coming back here," I told him. "It's no use giving me that card." However, I accepted the appointment card. "Our time is up for today, is it?"

"Regrettably," Doctor Horstowski said, "it is."

"I was not kidding when I told you I'm one of Pris' simulacra. There used to be a Louis Rosen, but no more. Now there's only me. And if anything happens to me, Pris and Maury have the instructional tapes to create another. Pris makes the body out of bathroom tile. It's pretty good, isn't it? It fooled you and my brother Chester and almost my father. That's the actual reason he's so unhappy; he guessed the truth." Having said that I nodded goodbye and walked from the office, along the hall and through the waiting room, to the street.

But you, I said to myself. You'll never guess, Doctor Horstowski, not in a million years. I'm good enough to fool you and all the rest of them like you.

Getting into my Chevrolet Magic Fire, I drove slowly back to the office.

six

After having told Doctor Horstowski that I was a simulacrum I could not get the idea out of my mind. Once there had been a real Louis Rosen but now he was gone and I stood in his spot, fooling almost everyone, including myself.

This idea persisted for the next week, growing a little dimmer each day but not quite fading out.

And yet on another level I knew it was a preposterous idea, just a lot of drivel I had come up with because of my resentment toward Doctor Horstowski.

The immediate effect of the idea was to cause me to look up the Edwin M.

Stanton simulacrum; when I got back to the office from my visit to the doctor I asked Maury where the thing could be found.

"Bundy's feeding a new tape to it," Maury said. "Pris came across a biography of Stanton that had some new material." He returned to his letter-reading.

I found Bundy in the shop with the Stanton; having finished, he was putting it back together. Now he was asking it questions.

"Andrew Johnson betrayed the Union by his inability to conceive the rebellious states as—" Seeing me, Bundy broke off. "Hi, Rosen."

"I want to talk to the thing. Okay?"

Bundy departed, leaving me alone with the Stanton. It was seated in a brown, cloth-covered armchair, with a book open on its lap; it regarded me sternly.

"Sir," I said, "do you recall me?"

"Yes sir, I do. You are Mr. Louis Rosen of Boise, Idaho. I recall a pleasant overnight stay with your father. Is he well?"

"Not as well as I wish he was."

"A pity."

"Sir, I'd like to ask you a question. Doesn't it seem odd to you that although you were born around 1800 you are still alive in 1982? And doesn't it seem odd to you to be shut off every now and then? And what about your being made out of transisters and relays? You didn't used to be, because in 1800 they didn't have transistors and relays." I paused, waiting.

"Yes," the Stanton agreed, "those are oddities. I have here a volume—" He held up his book. "Which deals with the new science of cybernetics, and this science has shed light on my perplexity."

That excited me. "Your perplexity!"

"Yes sir. During my stay with your father I discussed puzzling matters of this nature with him. When I consider the brief span of my life, swallowed up in the eternity before and behind it, the small space that I fill, or even see, engulfed in the infinite immensity of spaces which I know not, and which know not me, I am afraid."

"I should think so," I said.

"I am afraid, sir, and wonder to see myself here rather than there. For there is no reason why I should be here rather than there, now rather than then."

"Did you come to any conclusion?"

The Stanton cleared its throat, then got out a folded linen handkerchief and carefully blew its nose. "It seems to me that time must move in strange jumps, passing over intervening epochs. But why it would do that, or even how, I do not know. At a certain point the mind cannot fathom anything further."

"You want to hear my theory?"

"Yes sir."

"I claim there is no Edwin M. Stanton or Louis Rosen any more. There was once, but they're dead. We're machines."

The Stanton regarded me, its round, wrinkled face twisted up. "There may be some truth in that," it said finally.

"And," I said, "Maury Rock and Pris Frauentzimmer designed us and Bob Bundy built us. And right now they're working on an Abe Lincoln simulacrum."

The round, wrinkled face darkened. "Mr. Lincoln is dead."

"I know."

"You mean they are going to bring him back?"

"Yes," I said.

"Why?"

"To impress Mr. Barrows."

"Who is Mr. Barrows?" The old man's

voice grated.

"A multi-millionaire who lives in Seattle, Washington. It was his influence that got sub-dividers started on the Moon."

"Sir, have you ever heard of Artemus Ward?"

"No," I admitted.

"If Mr. Lincoln is revived you will be subjected to endless humorous selections from the writings of Mr. Ward." Scowling, the Stanton picked up its book and once more read. Its face was red and its hands shook.

Obviously I had said the wrong thing.

There was really not much that I knew about Edwin M. Stanton. Since everybody today looks up to Abraham Lincoln it hadn't occurred to me that the Stanton would feel otherwise. But you live and learn. After all, the simulacrum's attitude was formed well over a century ago, and there's not much you can do to change an attitude that old.

I excused myself—the Stanton barely glanced up and nodded—and set off down the street to the library. Fifteen minutes later I had the Britannica out and laid flat on a table; I looked up both Lincoln and Stanton and then the Civil War itself.

The article on Stanton was short but interesting. Stanton had started out hating Lincoln; the old man had been a Democrat, and he both hated and distrusted the new Republican Party. It described Stanton as being harsh, which I had already noticed, and it told of many squabbles with generals, especially Sherman. But, the article said, the old man was good in his job under Lincoln; he booted out fraudulent contractors and kept the troops well-equipped. And at the end of hostilities he was

able to demobilize 800,000 men, no mean feat after a bloody Civil War.

The trouble hadn't started until Lincoln's death. It had really been hot-going there for a while, between Stanton and President Johnson; in fact it looked as if the Congress were going to take over and be the sole governing body. As I read the article I began to get a pretty good idea of the old man. He was a real tiger. He had a violent temper and a sharp tongue. He almost got Johnson out and himself in as a military dictator.

But the Britannica added, too, that Stanton was thoroughly honest and a genuine patriot.

The article on Johnson stated bluntly that Stanton was disloyal to his chief and in league with his enemies. It called Stanton obnoxious. It was a miracle that Johnson got the old man out.

When I put the volumes of the Britannica back on the shelf I breathed a sigh of relief; just in those little articles you could catch the atmosphere of pure poison which reigned in those days, the intrigues and hates, like something out of Medieval Russia. In fact all the plotting at the end of Stalin's lifetime—it was much like that.

As I walked slowly back to the office I thought, Kindly old gentleman hell. The Rock-Frauenzimmer combine, in their greed, had reawakened more than a man; they had reawakened what had been an awesome and awful force in this country's history. Better they should have made a Zachary Taylor simulacrum. No doubt it was Pris and her perverse, nihilistic mind that had conceived this great joker in the deck, this choice out of all the possible thousands, even millions. Why not Socrates? Or Gandhi?

And so now they expected calmly and happily to bring to life a second simu-

lacrum: someone whom Edwin M. Stanton had a good deal of animosity toward. Idiots!

I entered our shop once more and found the Stanton reading as before. It had almost finished its cybernetics book.

There, not more than ten feet away, on the largest of MASA's workbenches, lay the mass of half-completed circuits which would one day be the Abraham Lincoln. Had the Stanton made it out? Had it connected this electronic confusion with what I had said? I stole a glance at the new simulacrum. It did not look as if anyone—or anything—had meddled inappropriately. Bundy's careful work could be seen, nothing else. Surely if the Stanton had gone at it in my absence, there would be a few broken or burned segments . . . I saw nothing like that.

Pris, I decided, was probably at home these days, putting the final life-like colors into the sunken cheeks of the Abe Lincoln shell which would house all these parts. That in itself was a full-time job. The beard, the big hands, skinny legs, the sad eyes. A field for her creativity, her artistic soul, to run and howl rampant. She would not show up until she had done a top-notch job.

Going back upstairs I confronted Maury. "Listen, friend. That Stanton thing is going to up and bang Honest Abe over the head. Or haven't you bothered to read the history books?" And then I saw it. "You *had* to read the books in order to make the instruction tapes. So you know better than I what the Stanton feels toward Lincoln! You know he's apt to roast the Lincoln into charred rust any minute!"

"Don't get mixed up in last year's politics." Maury put down his letters for a moment, sighing. "The other day

it was my daughter; now it's the Stanton. There's always some dark horror lurking. You have the mind of an old maid, you know that? Lay off and let me work."

I went back downstairs to the shop again.

There, as before, sat the Stanton, but now it had finished its book; it sat pondering.

"Young man," it called to me, "give me more information about this Barrows. Did you say he lives at our nation's Capital?"

"No sir, the state of Washington." I explained where it was.

"And is it true, as Mr. Rock tells me, that this Barrows arranged for the World's Fair to be held in that city through his great influence?"

"I've heard that. Of course, when a man is that rich and eccentric all sorts of legends crop up about him."

"Is the fair still in progress?"

"No, that was years ago."

"A pity," the Stanton murmured. "I wanted to go."

That touched me to the heart. Again I reexperienced my first impression of it: that in many ways it was more human—god help us!—than we were, than Pris or Maury or even me, Louis Rosen. Only my father stood above it in dignity. Doctor Horstowski—another only partly-human creature, dwarfed by this electronic simulacrum. And, I thought, what about Barrows? How will he look when compared, face to face, with the Stanton?

And then I thought, How about the Lincoln? I wonder how that will make us feel and make us look.

"I'd like your opinion about Miss Frauenzimmer, sir," I said to the simu-

lacrum. "If you have the time to spare."

"I have the time, Mr. Rosen."

I seated myself on a truck tire opposite its brown easy chair.

"I have known Miss Frauenzimmer for some time. I am not certain precisely how long, but no matter; we are well-acquainted. She has recently left the Kasanin Medical Clinic at Kansas City, Missouri and returned here to her family. As a matter of fact I live at the Frauenzimmer home. She has light gray eyes and stands five feet six inches. Her weight is one-hundred-twenty-pounds at this time. She has been losing weight, I am told. I cannot recall her as anything but beauteous. Now I shall dilate on deeper matters. Her stock is of the highest, although immigrant; for it has imbibed of the American vision, which is: that a person is only limited by his abilities and may rise to whatever station in life is best-suited to those abilities. It does not follow from that however, that all men will rise equally; far from it. But Miss Frauenzimmer is quite right in refusing to accept any arrangement which denies her expression of those abilities and she senses any infringement with a flash of fire in her gray eyes."

I said, "It sounds as if you've worked out your view thoroughly."

"Sir, it is a topic deserving of some consideration; you yourself have erected it for our mutual inspection, have you not?" Its hard but wise eyes sparkled momentarily. "Miss Frauenzimmer is basically good, at heart. She will come through. There is in her just a bit of impatience, and she does have a temper. But sir, temper is the anvil of justice, on which the hard facts of reality must be smitten. Men without temper are like animals without life; it is the spark that turns a lump of fur, flesh, bones and

fat into a breathing expression of the Creator."

I had to admit that I was impressed by the Stanton's harangue.

"What I am concerned with in Priscilla," the Stanton continued, "is not her fire and spirit; far from that. When she trusts her heart she trusts correctly. But Priscilla does not always listen to the dictates of her heart. Sorry to say, sir, she often pays heed to the dictates of her head. And there the difficulty arises."

"Ah," I said.

"For the logic of a woman is not the logic of the philosopher. It is in fact a vitiated and pale shadow of the knowledge of the heart, and, as a shade rather than an entity, it is not a proper guide. Women, when they heed their mind and not their heart, fall readily into error, and this may all too easily be seen in Priscilla Frauenzimmer's case. For when she hearkens there, a coldness falls over her."

"Ah!" I interjected excitedly.

"Exactly." The Stanton nodded and wagged its finger at me. "You, too, Mr. Rosen, have marked that shadow, that special coldness which emanates from Miss Frauenzimmer. And I see that it has troubled your soul, as well as mine. How she will deal with this in the future I do not know, but deal with it she must. For her Creator meant for her to come to terms with herself, and at present it is not in her to view with tolerance this part, this cold, impatient, abundantly-reasonable — but alas — *calculating* side of her character. For she has what many of us find in our own selves: a tendency to permit the insidious entrance of a meager and purblind philosophy into our everyday transactions, those we have with our fellows, our

daily neighbors . . . and nothing is more dangerous than this puerile, ancient, venerated compendium of opinion, belief, prejudice, and the now-discarded sciences of the past—all of these cast off rationalisms forming a sterile and truncated source for her deeds; whereas were she merely to bend, to listen, she would hear the individual and wholesome expression of her own heart, her own being."

The Stanton ceased speaking. It had finished its little speech on the topic of Pris. Where had it gotten it? Made it up? Or had Maury stuck the speech there in the form on an instruction tape, ready to be used on an occasion of this kind? It certainly did not sound like Maury. Was Pris herself responsible? Was this some bitter, weird irony of hers, inserting in the mouth of this mechanical contraption this penetrating analysis of herself? *I had the feeling it was. It demonstrated the great schizophrenic process still active in her, this strange split.*

I couldn't help comparing this to the sly, easy answers which Doctor Horstowski had given me.

"Thanks," I said to the Stanton. "I have to admit I'm very impressed by your off-the-cuff remarks."

"Off the cuff," it echoed.

"Without preparation."

"But this, sir, came from much preparation. For I have been gravely worried about Miss Frauenzimmer."

"Me, too," I said.

"And now, sir, I would be obliged if you would tell me about Mr. Barrows. I understand he has expressed an interest in me."

"Maybe I can get you the *Look* article. Actually I've never met him; I talked to his secretary recently, and I have a

letter from him—"

"May I see the letter?"

"I'll bring it around tomorrow."

"Was it your impression, too, that Mr. Barrows is interested in me?" The Stanton eyed me intently.

"I—guess so."

"You seem hesitant."

"You ought to talk to him yourself."

"Perhaps I will." The Stanton reflected, scratching the side of its nose with its finger. "I will ask either Mr. Rock or Miss Frauenzimmer to convey me there and assist me in meeting tete-a-tete Mr. Barrows." It nodded to itself, evidently having made its decision.

seven

Now that the Stanton had decided to visit Sam K. Barrows it was obvious that only the question of time remained. Even I could see the inevitability of it.

And at the same time, the Abraham Lincoln simulacrum neared completion. Maury set the next weekend for the date of the first test of the totality of the components. All the hardware would be in the case, mounted and ready to function.

The Lincoln container, when Pris and Maury brought it into the office, flabbergasted me. Even in its inert stage, lacking its working parts, it was so lifelike as to seem ready at any moment to rise into its day's activity. Pris and Maury, with Bob Bundy's help, carried the long thing downstairs to the shop; I trailed along and watched while they laid it out on the workbench.

To Pris I said, "I have to hand it to you."

Standing with her hands in her coat pockets, she somberly supervised. Her eyes seemed dark, deeper set; her skin

was quite noticeably pale—she had on no make-up, and I guessed that she had been up all hours every night, finishing her task. It seemed to me, too, that she had lost weight; now she appeared actually thin. She wore a striped cotton t-shirt and blue jeans under her coat, and apparently she did not even need to wear a bra. She had on her low-heeled leather slippers and her hair had been tied back and held with a ribbon.

"Hi," she murmured, rocking back and forth on her heels and biting her lip as she watched Bundy and Maury lower the Lincoln onto the bench.

"You did a swell job," I said.

"Louis," Pris said, "take me out of here; take me somewhere and buy me a cup of coffee, or let's just walk." She started toward the door and after a moment of hesitation I followed.

Together, we strolled along the sidewalk, Pris staring down and kicking a pebble ahead of her.

"The first one was nothing," she said, "compared to this. Stanton is just another person and yet even so it was almost too much for us. I have a book home with every picture taken of Lincoln. I've studied them until I know his face better than my own." She kicked her pebble into the gutter. "It's amazing how good those old photographs were. They used glass plates and the subject had to sit without moving. They had special chairs they built, to prop the subject's head so it wouldn't wobble. Louis." At the curb she halted. "Can he really come to life?"

"I dunno, Pris."

"It's all self-deception. We can't really restore life to something that's dead."

"Is that what you're doing? Is that how you think of it? If you put it like that I agree. Sounds like you're too deep

in it emotionally. You better back away and get perspective."

"You mean we're just making an imitation that walks and talks like the real thing. The spirit isn't there, just the appearance."

"Yes," I said.

"Did you ever go to a Catholic mass, Louis?"

"Naw."

"They believe the bread and wine actually are the body and blood. That's a miracle. Maybe if we get the tapes perfect here, and the voice and the physical appearance and—"

"Pris," I said, "I never thought I'd see you frightened."

"I'm not frightened. It's just too much for me. When I was a kid in junior high Lincoln was my hero; I gave a report on him in the eighth grade. You know how it is when you're a kid, everything you read in books is real. Lincoln was real to me. But of course I really spun it out of my own mind. So what I mean is, my own fantasies were real to me. It took me years to shake them, fantasies about the Union cavalry and battles and Ulysses S. Grant . . . you know."

"Yeah."

"Do you think someday somebody will make a simulacrum of you and me? And we'll have to come back to life?"

"What a morbid thought."

"There we'll be, dead and oblivious to everything . . . and then we'll feel something stirring. Maybe see a snatch of light. And then it'll all come flooding in on us, reality once more. We'll be helpless to stop the process, we'll have to come back. Resurrected!" She shuddered.

"It's not that, what you're doing; get that idea out of your mind. You have to separate the actual Lincoln from

this—”

“The real Lincoln exists in my mind,”
Pris said.

I was astonished. “You don’t believe that. What do you mean by saying that? You mean you have the *idea* in your mind.”

She cocked her head on one side and eyed me. “No, Louis. I really have Lincoln in my mind. And I’ve been working night after night to transfer him out of my mind, back into the outside world.”

I laughed.

“It’s a dreadful world to bring him into,” Pris said. “Listen Louis. I’ll tell you something. I know a way to get rid of those awful yellowjackets that sting everybody. You don’t take any risk . . . and it doesn’t cost anything; all you need is a bucket of sand.”

“Okay.”

“You wait until night. So the yellowjackets are all down below in their nest asleep. Then you show up at their hole and you pour the bucket of sand over it, so the sand forms a mound. Now listen. You think the sand suffocates them. But it’s not quite like that. Here’s what happens. The next morning the yellowjackets wake up and find their entrance blocked with this sand, so they start burrowing up into the sand to clear it away. They have no place to carry it except to other parts of their nest. So they start a bucket brigade; they carry the sand grain by grain to the back of their nest, but as they take sand from the entrance more falls in its place.”

“I see.”

“Isn’t it awful?”

“Yes,” I agreed.

“What they do is they gradually fill their own nest with sand. They do it themselves. The harder they work to clear their entrance the faster it happens,

and they suffocate. It’s like an Oriental torture, isn’t it? When I heard about this, Louis, I said to myself, I wish I was dead. I don’t want to live in a world where such things can be.”

“When did you learn about this sand technique?”

“Years ago; I was seven. Louis, I used to imagine what it was like down there in the nest. I’d be asleep.” Walking along beside me, she suddenly took hold of my arm and shut her eyes tight. “Absolutely dark. All around me, others like me. Then—thump. That’s the noise from above. Somebody dumping the sand. But it means nothing . . . we all sleep on.” She let me guide her along the sidewalk, pressing tightly against me. “Then we doze; we doze for the rest of the night, because it’s cold . . . but then daylight comes and the ground gets warm. But it’s still dark. We wake up. Why is there no light? We head for the entrance. All those particles, they block it. We’re frightened. What’s going on? We all pitch in; we try not to get panicked. We don’t use up all the oxygen; we’re organized into teams. We work silently. Efficiently.”

I lead her across the street; she still had her eyes shut. It was like leading a very tiny girl.

“We never see daylight, Louis. No matter how many grains of sand we haul away. We work and we wait, but it never comes. Never.” In a despairing, strangled voice she said, “We die, Louis, down there.”

I wound my fingers through hers. “What about the cup of coffee now?”

“No,” she said. “I just want to walk.”

We went on for a distance.

“Louis,” Pris said, “those insects like wasps and ants . . . they do so much down in their nests; it’s very compli-

cated."

"Yes. Also spiders."

"Spiders in particular. Like the trap-door spider. I wonder how a spider feels when someone breaks its web to pieces."

"It probably says 'drat,'" I said.

"No," Pris said solemnly. "It gets furious, and then it abandons hope. First it's sore—it would sting you to death if it could get hold of you. And then this slow, awful blind despair creeps over it. It knows that even if it rebuilds, the same thing is going to happen again."

"But spiders get right out there and rebuild."

"They have to. It's inherited in them. That's why their lives are worse than ours; they can't give up and die—they have to go on."

"You ought to look on the bright side once in awhile. You do fine creative work, like those tiles, like your work on the simulacra; think about that. Doesn't that cheer you? Don't you feel inspired by the sight of your own creativity?"

"No," Pris said. "Because what I do doesn't matter. It isn't enough."

"What would be enough?"

Pris considered. She had opened her eyes, now, and all at once she disengaged her fingers from mine. It seemed automatic; she showed no awareness of doing it. A reflex, I thought. Such as spiders have.

"I don't know," she said. "But I know that no matter how hard I work or how long or what I achieve—*it won't be enough.*"

"Who judges?"

"I do."

"You don't think that when you see the Lincoln come to life you'll feel pride?"

"I know what I'll feel. Greater despair than ever."

I glanced at her. Why that? I wondered. Despair at success . . . it makes no sense. What would failure bring for you, then? Elation?

"I'll tell you one, out of the world of nature," I said. "See what you make of it."

"Okay." She listened intently.

"One day I was starting into a post office in some town down in California and there were birds' nests up in the eaves of the building. And a young bird had flown or dropped out and was sitting on the pavement. And its parents were flying around anxiously. I walked up to it with the idea of picking it up and putting it back up in the nest, if I could reach the nest." I paused. "Do you know what it did as I came near?"

"What."

I said, "It opened its mouth. Expecting that I would feed it."

Wrinkling her brow, Pris pondered.

"See," I explained, "that shows that it had known only life forms which fed and protected it and when it saw me even though I didn't look like any living thing it had ever known it assumed I would feed it."

"What does that mean to you?"

"It shows that there's benevolence and kindness and mutual love and selfless assistance in nature as well as cold awful things."

Pris said, "No, Louis; it was ignorance on the bird's part. You weren't going to feed it."

"But I was going to help it. It was right to trust me."

"I wish I could see that side of life, Louis, like you do. But to me—it's just ignorance."

"Innocence," I corrected.

"That's the same; innocence of reality. It would be great if you could keep

that, I wish I had kept it. But you lose that by living, because living means to experience, and that means—

"You're cynical," I told her."

"No, Louis. Just realistic."

"I can see it's hopeless," I said. "Nobody can break through and reach you. And you know why? Because you want to be the way you are; you prefer it. It's easier, it's the easiest way of all. You're lazy, on a ghastly scale, and you'll keep on until you're forced to be otherwise. You'll never change by yourself. In fact you'll just get worse."

Pris laughed, sharply and coldly.

So we walked back without saying anything more to each other.

When we returned to the repair shop we found the Stanton watching Bob Bundy as he labored on the Lincoln.

To the Stanton, Pris said, "This is going to be that man who used to write you all those letters about getting soldiers pardoned."

The Stanton said nothing; it gazed fixedly at the prone figure, its face lined and stiff with a sort of haughty aloofness. "So I see," it replied at last. It cleared its throat noisily, coughed, struck a pose in which it put its arms behind its back and clasped its fingers together; it rocked back and forth, still with the same expression. This is my business, it seemed to be saying. Everything of public importance is my business.

It had, I decided, taken up much the same stance that it had assumed during its authentic earlier lifetime. It was returning to its customary posture. Whether this was good or not I could not say. Certainly, as we watched the Lincoln we were all acutely aware of the Stanton behind us; we could not ignore it or



forget it. Maybe that's how Stanton had been during his lifetime, always there—no one could ignore him or forget him, no matter how they felt about him otherwise, whether they hated him or feared him or worshipped him.

Pris said, "Maury, I think this one's already working out better than the Stanton one. Look, it's stirring."

Yes, the prone Lincoln simulacrum had stirred.

"Sam Barrows ought to be here," Pris said excitedly, clasping her hands together. "What's wrong with us? If he could see it he'd be overwhelmed—I know he'd be. Even he, Maury, even Sam K. Barrows!"

It was impressive. No doubt of it.

"I remember when the factory turned out our first electronic organ," Maury said to me. "And we all played it, all day long, until one in the morning; you remember?"

"Yes."

"You and me and Jerome and that brother of yours with the upside down face, we made the darn thing sound like a harpsichord and a Hawaiian guitar and a steam calliope. We played all sorts of stuff on it, Bach and Gershwin, and then remember we made those frozen rum drinks with the blender—and after that, what did we do. We made up our own compositions and we found all types of tone settings, thousands of them; we made up new musical instruments that didn't exist. We composed! And we got that tape recorded and turned it on while we composed. Boy. That was something."

"That was the day."

"And I lay down on the floor and worked the foot pedals that get those low notes—I passed out on the low G, as I recall. And it kept playing; when I

came to the next morning that goddam low G was still sounding like a fog horn. Wow. That organ—where do you suppose it is now, Louis?"

"In someone's living room. They never wear out because they don't generate any heat. And they never need to be tuned. Someone's playing tunes on it right now."

"I'll bet you're right."

Pris said, "Help it sit up."

The Lincoln simulacrum had begun struggling, flailing with its big hands in an effort to sit up. It blinked its eyes, grimaced; its heavy features stirred. Both Maury and I jumped over and helped support it; god, it weighed a lot, like solid lead. But we managed to get it up to a sitting position at last; we propped it against the wall so it wouldn't slide back down again.

It groaned.

Something about the noise made me shiver. Turning to Bob Bundy I said, "What do you think? Is it okay? It's not suffering, is it?"

"I don't know." Bundy drew his fingers nervously again and again through his hair; I noticed that his hands were shaking. "I can check it over. The pain-circuits."

"Pain-circuits!"

"Yeah. It has to have them or it'll run into a wall or some goddam object and massacre itself." Bundy jerked a thumb toward the silent, watching Stanton. "That's got 'em, too. What else, for crissakes?"

We were, beyond doubt, watching a living creature being born. It now had begun to take note of us; its eyes, jet black, moved up and down, from side to side, taking us all in, the vision of us. In the eyes no emotion showed, only pure perception of us. Wariness beyond

the capacity of man to imagine. The cunning of a life form from beyond the lip of our universe, from another land entirely. A creature plopped into our time and our space, conscious of us and itself, its existence, here; the black, opaque eyes rolled, focussing and yet not focussing, seeing everything and in a sense not picking out any one thing. As if it were primarily in suspension, yet; waiting with such infinite reserve that I could glimpse thereby the dreadful fear it felt, fear so great that it could not be called an emotion. It was fear as absolute existence: the basis of its life. It had become separate, yanked away from some fusion that we could not experience—at least, not now. Maybe once we all had lain quietly in that fusion. For us, the rupturing was long past; for the Lincoln it had just now occurred—was now taking place.

It's moving eyes still did not alight anywhere, on anything; it refused to perceive any given, individual thing.

"Gosh," Maury muttered. "It sure looks at us funny."

Some deep skill was imbedded in this thing. Imparted to it by Pris? I doubted it. By Maury? Out of the question. Neither of them did this, nor had Bob Bundy whose idea of a good time was to drive like hell down to Reno to gamble and whore around. They had dropped life into this thing's ear, but it was just a transfer, not an invention; they had passed life on, but it did not originate in any or all of them. It was a contagion; they had caught it once and now these materials had contracted it—for a time. And what a transformation. Life is a form which matter takes . . . I made that up as I watched the Lincoln thing perceive us and itself. It is something which matter does. The most aston-

ishing—the one truly astonishing—form in the universe; the one which, if it did not exist, could never have been predicted or even imagined.

And, as I watched the Lincoln come by degrees to a relationship with what it saw, I understood something: the basis of life is not a greed to exist, not a desire of any kind. It's fear, the fear which I saw here. And not even fear; much worse. Absolute *dread*. Paralyzing dread so great as to produce apathy. Yet the Lincoln stirred, rose out of this. Why? Because it had to. Movement, action, were implied by the extensiveness of the dread. That state, by its own nature, could not be endured.

All the activity of life was an effort to relieve this one state. Attempts to mitigate the condition which we saw before us now.

Birth, I decided, is not pleasant. It is worse than death; you can philosophize about death—and you probably will: everyone else has. But birth! There is no philosophizing, no easing of the condition. And the prognosis is terrible: all your actions and deeds and thoughts will only embroil you in living the more deeply.

Again the Lincoln groaned. And then in a hoarse growl it mumbled words.

"What?" Maury said. "What'd it say?"

Bundy giggled. "Hell, it's a voice-tape but it's running through the transport backwards."

The first words uttered by the Lincoln thing: uttered backward, due to an error in wiring.

eight

It took several days to rewire the Lincoln simulacrum. During those days I drove from Ontario west through the

Oregon Sierras, through the little logging town of John Day which has always been my favorite town in the western United States. I did not stop there, however; I was too restless. I kept on west until I joined the north-south highway. That straight road, the old route 99, goes through hundreds of miles of conifers. At the California end you find yourself going by volcanic mountains, black, dull and ashy, left over from the age of giants.

Two tiny yellow finches, playing and fighting in the air, swept up against the hood of my car; I heard and felt nothing but I knew by their disappearance and the sudden silence that they had gone into the radiator grill. Cooked and dead in an instant, I said to myself, slowing the car. And sure enough, at the next service station the attendant found them. Bright yellow, caught in the grill. Wrapping them in Kleenex I carried them to the edge of the highway and dropped them into the litter of plastic beer cans and moldering paper cartons there.

Ahead lay Mount Shasta and the border station of California. I did not feel like going on. That night I slept in a motel at Klamath Falls and the next day I started back up the coast the way I had come.

It was only seven-thirty in the morning and there was little traffic on the road. Overhead I saw something which caused me to pull off onto the shoulder and watch. I had seen such sights before and they always made me feel deeply humble and at the same time buoyed up. An enormous ship, on its way back from Luna or one of the planets, was passing slowly by, to its landing somewhere in the Nevada desert. A number of Air Force jets were accompanying it. Near it they looked no larger than black dots.

What few other cars there were on the highway had also stopped to watch. People had gotten out and one man was taking a snapshot. A woman and a small child waved. The great rocketship passed on, shaking the ground with its stupendous retro-blasts. Its hull, I could see, was pitted, scarred and burned from its re-entry into the atmosphere.

There goes our hope, I said to myself, shielding my eyes against the sun to follow its course. What's it got aboard? Soil samples? The first non-terrestrial life to be found? Broken pots discovered in the ash of an extinct volcano—evidence of some ancient civilized race?

More likely just a flock of bureaucrats. Federal officials, Congressmen, technicians, military observers, rocket scientists coming back, possibly some *Life* and *Look* reporters and photographers and maybe crews from NBC and CBS television. But even so it was impressive. I waved, like the woman with the small boy.

As I got back into my car I thought, Someday there'll be little neat houses in rows up there on the Lunar surface. TV antennae, maybe Rosen spinet pianos in living rooms . . .

Maybe I'll be putting repossession ads in newspapers on other worlds, in another decade or so.

Isn't that heroic? Doesn't that tie our business to the stars?

But we had a much more direct tie. Yes, I could catch a glimpse of the passion dominating Pris, this obsession about Barrows. He was the link, moral, physical and spiritual, between us mere mortals and the sidereal universe. He spanned both realms, one foot on Luna, the other in real estate in Seattle, Washington and Oakland, California. Without Barrows it was all a mere dream; he

made it tangible. I had to admire him as a man, too. He wasn't awed by the idea of settling people on the Moon; to him, it was one more—one very vast—business opportunity. A chance for high returns on an investment, higher even than on slum rentals.

So back to Ontario, I said to myself. And face the simulacra, our new and enticing product, designed to lure out Mr. Barrows, to make us perceptible to him. To make us a part of the new world. To make us *alive*.

When I got back to Ontario I went directly to MASA ASSOCIATES. As I drove up the street, searching for a place to park, I saw a crowd gathered at our office building. They were looking into the new showroom which Maury had built. Ah so, I said to myself with a deep fatalism.

As soon as I had parked I hurried on foot to join the crowd.

There, inside the showroom, sat the tall, bearded, hunched, twilight figure of Abraham Lincoln. He sat at an old-fashioned rolltop walnut desk, a familiar desk; it belonged to my father. They had moved it from the factory in Boise to here for the Lincoln simulacrum to make use of.

It angered me. Yet I had to admit it was apropos. The simulacrum, wearing much the same sort of clothing as the Stanton, was busy writing a letter with a quill pen. I was amazed at the realistic appearance which the simulacrum gave; if I had not known better I would have assumed that it was Lincoln reincarnated in some unnatural fashion. And, after all, wasn't that precisely what it was? Wasn't Pris right after all?

Presently I noticed a sign in the window; professionally lettered, it explained

to the crowd what was going on.

THIS IS AN AUTHENTIC RE-CONSTRUCT OF ABRAHAM LINCOLN, SIXTEENTH PRESIDENT OF THE UNITED STATES. IT WAS MANUFACTURED BY MASA ASSOCIATES IN CONJUNCTION WITH THE ROSEN ELECTRONIC ORGAN FACTORY OF BOISE, IDAHO. IT IS THE FIRST OF ITS KIND. THE ENTIRE MEMORY AND NEURAL SYSTEM OF OUR GREAT CIVIL WAR PRESIDENT HAS BEEN FAITHFULLY REPRODUCED IN THE RULING MONAD STRUCTURE OF THIS MACHINE, AND IT IS CAPABLE OF RENDERING ALL ACTIONS, SPEECH AND DECISIONS OF THE SIXTEENTH PRESIDENT TO A STATISTICALLY PERFECT DEGREE.

INQUIRIES INVITED.

The corny phrasing gave it away as Maury's work. Infuriated, I pushed through the crowd and rattled the showroom door; it was locked, but having a key I unlocked it and passed on inside.

There in the corner on a newly-purchased couch sat Maury, Bob Bundy and my father. They were quietly watching the Lincoln.

"Hi, buddy boy," Maury said to me.

"Made your cost back yet?" I asked him.

"No. We're not charging anybody for anything. We're just demonstrating."

"You dreamed up that sixth-grader type sign, didn't you? I know you did. What sort of sidewalk traffic did you expect to make an inquiry? Why don't you have the thing sell cans of auto wax or dishwasher soap? Why just have it

sit and write? Or is it entering some breakfast contest?"

Maury said, "It's going over its regular correspondence." He and my dad and Bundy all seemed sobered.

"Where's your daughter?"

"She'll be back."

To my dad I said, "You mind it using your desk?"

"No, mein Kind," he answered. "Go speak with it; it maintains a calmness when interrupted that astonishes me. This I could well learn."

I had never seen my father so chastened.

"Okay," I said, and walked over to the rolltop desk and the writing figure. Outside the showroom window the crowd gawked.

"Mr. President," I murmured. My throat felt dry. "Sir, I hate to bother you." I felt nervous, and yet at the same time I knew perfectly well that this was a machine I was facing. My going up to it and speaking to it this way put me into the fiction, the drama, as an actor like the machine itself; nobody had fed me an instruction tape—they didn't have to. I was acting out my part of the foolishness voluntarily. And yet I couldn't help myself. Why not say to it, "Mr. Simulacrum"? After all that was the truth.

The truth! What did that mean? Like a kid going up to the department store Santa; to know the truth was to drop dead. Did I want to do that? In a situation like this, to face the truth would mean the end of everything, of me before all. The simulacrum wouldn't have suffered. Maury, Bob Bundy and my dad wouldn't even have noticed. So I went on, because it was myself I was protecting; and I knew it, better than anyone else in the room, including the

crowd outside gawking in.

Glancing up, the Lincoln put aside its quill pen and said in a rather high-pitched, pleasant voice, "Good afternoon. I take it you are Mr. Louis Rosen."

"Yes sir," I said.

And then the room blew up in my face. The rolltop desk flew into a million pieces; they burst up at me, flying slowly, and I shut my eyes and fell forward, flat on the floor; I did not even put out my hands. I felt it hit me; I smashed into bits against it, and darkness covered me up.

I had fainted. It was too much for me. I had passed out cold.

Next I knew I was upstairs in the office, propped up in a corner. Maury Rock sat beside me, smoking one of his Corina Larks, glaring at me and holding a bottle of household ammonia under my nose.

"Christ," he said, when he realized I had come to. "You got a bump on your forehead and a split lip."

I put up my hand and felt the bump; it seemed to be as big as a lemon. And I could taste the shreds of my lip. "I passed out," I said.

"Yeah, didn't you."

Now I saw my dad hovering nearby. And—disagreeably—Pris Frauentzimmer in her long gray cloth coat, pacing back and forth, glancing at me with exasperation and the faint hint of contemptuous amusement.

"One word from it," she said to me, "and you're out. Good grief."

"So what," I managed to say feebly.

To his daughter, Maury said, grinning, "It proves what I said; it's effective."

"What—did the Lincoln do?" I asked. "When I passed out?"

Maury said, "It got up, picked you up and carried you up here."

"Jesus," I murmured.

"Why did you faint?" Pris said, bending down to peer at me intently. "What a bump. You idiot. Anyhow, it got the crowd; you should have heard them. I was outside with them, trying to get through. You'd think we had produced God or something; they were actually praying and a couple of old ladies were crossing themselves. And some of them, if you can believe it—"

"Okay," I broke in.

"Let me finish."

"No," I said. "Shut up. Okay?"

We glared at each other and then Pris rose to her feet. "Did you know your lip is badly gashed? You better get a couple of stitches put in it."

Touching my lip with my fingers I discovered that it was still dribbling blood. Perhaps she was right.

"I'll drive you to a doctor," Pris said. She walked to the door and stood waiting. "Come on, Louis."

"I don't need any stitches," I said, but I rose and shakily followed after her.

As we waited in the hall for the elevator Pris said, "You're not very brave, are you?"

I did not answer.

"You reacted worse than I did, worse than any of us. I'm surprised. There must be a far less stable streak in you than any of us knows about. And I bet someday, under stress, it shows up. Someday you're going to reveal grave psychological problems."

The elevator door opened; we entered and the doors shut.

"Is it so bad to react?" I said.

"At Kansas City I learned how not to react unless it was in my interest to. That was what saved me and got me

out of there and out of my illness. That was what they did for me. It's always a bad sign when there's effect, as in your case; it's always a sign of failure in adjustment. They call it parataxis, at Kansas City; it's emotionality that enters inter-personal relations and makes them complicated. It doesn't matter if it's hate or envy or, as in your case, fear—they're all parataxis. And when they get strong enough you have mental illness. And, when they take control, you have 'phrenia, like I had. That's the worst."

I held a handkerchief to my lip, dabbing and fussing with the cut. There was no way I could explain my reaction to Pris; I did not try.

"Shall I kiss it?" Pris said. "And make it well?"

I glared at her, but then I saw that on her face there was vibrant concern.

"Hell," I said, flustered. "It'll be okay." I was embarrassed and I couldn't look at her. I felt like a little boy again. "Adults don't talk to each other like that," I mumbled. "Kissing and making well—what sort of dumbdiction is that?"

"I want to help you." Her mouth quivered. "Oh, Louis—it's all over."

"What's all over?"

"It's alive. I can never touch it again. Now what'll I do? I have no further purpose in life."

"Christ," I said.

"My life is empty—I might as well be dead. All I've done and thought has been the Lincoln." The elevator door opened and Pris started out into the lobby of the building. I followed. "Do you care what doctor you go to? I'll just take you down the street, I guess."

"Fine."

As we got into the white Jaguar, Pris said, "Tell me what to do, Louis. I

have to do something right away."

At a loss I said, "You'll get over this depression."

"I never felt like this before."

"I'm thinking. Maybe you could run for Pope." It was the first thing that popped into my mind; it was insane.

"I wish I were a man. Women are cut off from so much. You could be anything, Louis. What can a woman be? A housewife or a clerk or a typist or a teacher."

"Be a doctor," I said. "Stitch up wounded lips."

"I can't stand sick or damaged or defective creatures. You know that, Louis. That's why I'm taking you to the doctor; I have to avert my gaze—maimed as you are."

"I'm not maimed! I've just got a cut lip!"

Pris started up the car and we drove out into traffic. "I'm going to forget the Lincoln. I'll never think of it again as living; it's just an object to me from this minute on. Something to market."

I nodded.

"I'm going to see to it that Sam Barrows buys it. I have no other task in life but that. From now on all I will think or do will have Sam Barrows at the core of it."

If I felt like laughing at what she was saying I had only to look at her face; her expression was so bleak, so devoid of happiness or joy or even humor, that I could only nod. While driving me to the doctor to have my lip stitched up, Pris had dedicated her entire life, her future and everything in it. It was a kind of maniacal whim, and I could see that it had swum up to the surface out of desperation. Pris could not bear to spend a single moment without something to occupy her; she had to have a goal. It was her way of forcing the uni-

verse to make sense.

"Pris," I said, "the difficulty with you is that you're rational."

"I'm not; everybody says I do exactly what I feel like."

"You're driven by iron-clad logic. It's terrible. It has to be gotten rid of. Tell Horstowski that; tell him to free you from logic. You function as if a geometric proof were cranking the handle of your life. Relent, Pris. Be carefree and foolish and stupid. Do something that has no purpose. Okay? Don't even take me to the doctor; instead, dump me off in front of a shoeshine parlor and I'll get my shoes shined."

"Your shoes are already shined."

"See? See how you have to be logical all the time? Stop the car at the next intersection and we'll both get out and leave it, or go to a flower shop and buy flowers and throw them at other motorists."

"Who'll pay for the flowers?"

"We'll steal them. We'll run out the door without paying."

"Let me think it over," Pris said.

"Don't think! Did you ever steal anything when you were a kid? Or bust something just for the hell of it, maybe some public property like a street lamp?"

"I once stole a candy bar from a drugstore."

"We'll do that now," I said. "We'll find a drugstore and we'll be kids again; we'll steal a dime candy bar apiece, and we'll go find a shady place and sit like on a lawn for instance and eat it."

"You can't, because of your lip."

I said in a reasonable, urgent voice, "Okay. I admit that. But you could. Isn't that so? Admit it. You could go into a drugstore right now and do that, even without me."

"Would you come along anyhow?"

"If you want me to. Or I could park at the curb with the motor running and drive you the second you appeared. So you'd get away."

"No," Pris said, "I want you to come into the store with me and be right there beside me. You could show me which candy bar to take; I need your help."

"I'll do it."

"What's the penalty for something like that?"

"Life everlasting," I said.

"You're kidding me."

"No," I said. "I mean it." And I did; I was deeply serious.

"Are you making fun of me? I see you are. Why would you do that? Am I ridiculous, is that it?"

"God no!"

But she had made up her mind. "You know I'll believe anything. They always kidded me in school about my gullibility. 'Gullible's travels,' they called me."

I said, "Come into the drugstore, Pris, and I'll show you; let me prove it to you. To save you."

"Save me from what?"

"From the certitude of your own mind."

She wavered; I saw her swallow, struggle with herself, try to see what she should do and if she had made a mistake—she turned and said to me earnestly, "Louis, I believe you about the drugstore, I know you wouldn't make fun of me; you might hate me—you do hate me, on many levels—but you're not the kind of person who enjoys taunting the weak."

"You're not weak."

"I am. But you have no instinct to sense it. That's good, Louis. I'm the other way around; I have that instinct and I'm not good."

"Good, schmood," I said loudly. "Stop all this, Pris. You're depressed because you've finished your creative work with the Lincoln, you're temporarily at loose ends and like a lot of creative people you suffer a letdown between one—"

"There's the doctor's place," Pris said, slowing the car.

After the doctor had examined me—and sent me off without seeing the need of stitching me up—I was able to persuade Pris to stop at a bar. I felt I had to have a drink. I explained to her that it was a method of celebrating, that it was something which had to be done; it was expected of us. We had seen the Lincoln come to life and it was a great moment, perhaps the greatest moment, of our lives. And yet, as great as it was, there was in it something ominous and sad, something upsetting to all of us, that was just too much for us to handle.

"I'll have just one beer," Pris said as we crossed the sidewalk.

At the bar I ordered a beer for her and an Irish coffee for myself.

"I can see you're at home, here," Pris said, "in a place like this. You spend a lot of time bumming around bars, don't you?"

I said, "There's something I've been thinking about you that I have to ask you. Do you believe the cutting observations you make about other people? Or are they just off-hand, for the purpose of making people feel bad? And if so—"

"What do you think?" Pris said in a level voice.

"I don't know."

"Why do you care anyhow?"

"I'm insatiably curious about you, for every detail and tittle."

"Why?"

"You've had a fascinating history. Schizoid by the, compulsive-obsessive neurotic by thirteen, full-blown schizophrenic by seventeen and a ward of the Federal Government, now halfway cured and back among human beings again but still—" I broke off. That was not the reason, her lurid history. "I'll tell you the truth. I'm in love with you."

"You're lying."

Amending my statement I said, "I *could* be in love with you."

"If what?" She seemed terribly nervous; her voice shook.

"I don't know. Something holds me back."

"Fear."

"Maybe so," I said. "Maybe it's plain simple fear."

"Are you kidding me, Louis? When you said that? Love, I mean?"

"No, I'm not kidding."

She laughed tremulously. "If you could conquer your fear you could win a woman; not me but some woman. I can't get over you saying that to me. Louis, you and I are opposites, did you know that? You show your feelings, I always keep mine in. I'm much deeper. If we had a child, what would it be like? I can't understand women who are always having children, they're like mother dogs . . . a litter every year. It must be nice to be biological and earthy like that." She glanced at me out of the corner of her eye. "That's a closed book to me. They fulfill themselves through their reproductive system, don't they? Golly, I've known women like that but I could never be that way. I'm never happy unless I'm doing things with my hands. Why is that, I wonder?"

"No knowing."

"There has to be an explanation; everything has a cause. Louis, I can't remem-

ber for sure, but I don't think any boy ever said he was in love with me before."

"Oh, they must have. Boys in school."

"No, you're the first. I hardly know how to act . . . I'm not even sure if I like it. It feels strange."

"Accept it," I said.

"Love and creativity," Pris said, half to herself. "It's birth we're bringing about with the Stanton and the Lincoln; love and birth—the two are tied together, aren't they? You love what you give birth to, and since you love me, Louis, you must want to join me in bringing something new to life, don't you?"

"Guess so."

"We're like gods," Pris said, "in what we've done, this task of ours, this great labor. Stanton and Lincoln, the new race . . . and yet by giving them life we empty ourselves. Don't you feel hollow, now?"

"Heck no."

"Well, you're so different from me. You have no real sense of this task. Coming here to this bar . . . it was a mementary impulse that you yielded to. Maury and Bob and your dad and the Stanton are back at MASA with the Lincoln—you have no consciousness of that because you *want* to sit in a bar and have a drink." She smiled at me genially, tolerantly.

"Suppose so," I said.

"I'm boring you, aren't I? You really have no interest in me; you're only interested in yourself."

"That's so. I realize you're right."

"Why did you say you wanted to know everything about me? Why did you say you were almost in love with me except that fear held you back?"

"I dunno."

"Don't you ever try to look yourself

in the face and understand your own motives? I'm always analyzing myself."

I said, "Pris, be sensible for a moment. You're only one person among many, no better and no worse. Thousands of Americans go to—are right now in—mental health clinics, get schizophrenia and are committed under the McHeston Act. You're attractive, I'll admit, but any number of movie starlets in Sweden and Italy are more so. Your intelligence is—"

"It's yourself you're trying to convince."

"Pardon?" I said, taken aback.

"You're the one who idolizes me and is fighting against recognizing it." Pris said calmly.

I pushed away my drink. "Let's get back to MASA." The alcohol made my cut lip burn searingly.

"Did I say the wrong thing?" For a moment she looked disconcerted; she was thinking back over what she had said, amending it, improving it. "I mean, you're ambivalent about me . . ."

I took hold of her arm. "Finish your beer and let's leave."

As we left the bar she said wanly, "You're sore at me again."

"No."

"I try to be nice to you but I always rub people the wrong way when I make a deliberate effort to be polite to them and say what I ought to say . . . it's wrong of me to be artificial. I told you I shouldn't adopt a set of behavior-patterns that are false to me. It never works out." She spoke accusingly, as if it had been my idea.

"Listen," I said as we got back into the car and set out into the traffic. "We'll go back and resume our dedicated task of making Sam Barrows the core of all that we do—right?"

"No," Pris said. "Only I can do that.

That's not within your power."

I patted her on the shoulder. "You know, I'm much more sympathetic to you, too, than I was. I think we're beginning to work out a very good, wholesome, stable relationship between us."

"Maybe so," Pris said, unaware of any overtone of sarcasm. She smiled at me. "I hope so, Louis. People should understand one another."

When we got back to MASA, Maury greeted us excitedly. "What took you so long?" He produced a piece of paper. "I sent a wire to Sam Barrows. Read it—here." He pushed it into my hands.

Uneasily, I unfolded the paper and read Maury's writing.

ADVISE YOU FLY HERE AT
ONCE. LINCOLN SIMULA-
CRUM INCREDIBLE SUC-
CESS. REQUEST YOUR DECISION.
SAVING ITEM FOR
YOUR FIRST INSPECTION AS
PER PHONE CALL. EX-
CEEDS WILDEST HOPES.
EXPECT TO HEAR FROM
YOU WITHIN DAY.

MAURY ROCK,
MASA ASSOCIATES

"Has he answered yet?" I asked.

"Not yet, but we just phoned in the wire."

There was a commotion and Bob Bundy appeared. To me he said, "Mr. Lincoln asked me to express his regrets and find out how you are." He looked pretty shaky, himself.

"Tell him I'm okay." I added, "And thank him."

"Right." Bundy departed; the office door shut after him.

To Maury I said, "I have to admit it, Rock. You're onto something. I was wrong."

"Thanks for coming around."

Pris said, "You're wasting your thanks on him."

Puffing on his Corina agitatedly Maury said, "We've got a lot of work ahead of us. I know we'll get Barrows' interest now. But what we have to be careful of—" He lowered his voice. "A man like that could sweep us aside like a lot of kindling. Am I right, buddy?"

"Right," I answered. I had thought of that, too.

"He's probably done it a million times to a small operators along the way. We got to close ranks, all four of us; five, if you include Bob Bundy. Right?" He looked around at Pris and me and my dad.

My dad said, "Maury, maybe you should take this to the Federal Government." He looked timidly at me. "Hab' Ich nicht Recht, mein Sohn?"

"He's already contacted Barrows," I said. "For all we know, Barrows is on his way here."

"We could tell him no," Maury said, "even if he shows up. If we feel this should go to Washington D.C. instead."

"Ask the Lincoln," I said.

"What?" Pris said sharply. "Oh for god's sake."

"I mean it," I said. "Get its advice."

"What would a hick politician from the last century know about Sam K. Barrows?" Pris shot at me sardonically.

In as calm a voice as possible I said, "Pris, watch it. Honest to god."

Maury said quickly, "Let's not get to quarreling. We all have a right to express our opinions. I think we should go ahead and show the Lincoln to Barrows and if for some crazy reason—" He broke off. The office phone was ringing. Striding over he picked it up. "MASA ASSOCIATES. Maury Rock speaking."

Silence.

Turning toward us Maury mouthed silently: *Barrows*.

That's it, I said to myself. The die is cast.

"Yes sir," Maury was saying into the phone. "We'll pick you up at the Boise airfield. Yes, we'll see you there." His face glowed; he winked at me.

To my dad I said, "Where's the Stanton?"

"What, mein Sohn?"

"The Stanton simulacrum—I don't see it around." Recalling its expression of hostility toward the Lincoln I got up and went over to where Pris stood trying to hear the other end of Maury's phone conversation. "Where's the Stanton?" I said loudly to her.

"I don't know. Bundy put it somewhere; it's probably down in the shop."

"Wait a minute." Maury lowered the phone. To me, with a strange expression on his face, he said, "The Stanton is in Seattle. With Barrows."

"Oh no," I heard Pris say.

Maury said, "It took the Greyhound bus last night. Got there this morning and looked him right up. Barrows says he's been having a good long talk with it." Maury covered the phone with his hand. "He hasn't gotten our wire yet. It's the Stanton he's interested in. Shall I tell him about the Lincoln?"

"You might as well," I said. "He'll be getting the wire."

"Mr. Barrows," Maury said into the phone, "we just sent you a wire. Yes—we have the Lincoln electronic simulacrum operating and it's an incredible success, even more so than the Stanton." Glancing at me with an uneasy grimace he said, "Sir, you'll be accompanied on the plane flight by the Stanton, will you not? We're anxious to get it back."

Silence, and then Maury once more lowered the phone. "Barrows says the Stanton told him it intends to stay in Seattle a day or so and look at the sights. It intends to get a haircut and visit the library and if it likes the town maybe even think about opening a law office and settling down there."

"Christ's cross," Pris said, clenching her fists. "Tell Barrows to talk it into coming back here!"

Maury said into the phone, "Can't you persuade it to come with you, Mr. Barrows?" Again silence. "It's gone," Maury said to us, this time not covering the phone. "It said goodbye to Barrows and took off." He frowned, looking deeply distressed.

I said, "Anyhow, finish up as to the flight."

"Right." Maury drew himself together and again addressed the phone. "I'm sure the damn thing'll be all right; it had money, didn't it?" Silence. "And you gave it twenty dollars, too; good. Anyhow, we'll see you. The Lincoln one is even better. Yes sir. Thanks. Goodbye." He hung up and sat staring down at the floor, his lips twisting. "I didn't even notice it was gone. You think it was sore about the Lincoln? Maybe so; it's got one hell of a temper."

"No use crying over spilt milk," I said.

"True," Maury murmured, chewing his lip. "And it's got a battery good for six months! We may not see it until next year. My god, we've got thousands of dollars tied up in it—and what if Barrows is stringing us? Maybe he's got the thing locked up in a vault somewhere."

"If he had," Pris said, "he wouldn't be coming here. In fact, maybe this is all for the good; maybe Barrows wouldn't

be coming here except for the Stanton, what it said and did—he got to see it and maybe the wire wouldn't have brought him. And if it hadn't run off and ditched him maybe he would have snared it and we'd be out in the cold; right?"

"Yeah," Maury agreed morosely.

My dad said, "Mr. Barrows is reputable, isn't he? A man with so much social concern as he expresses, this letter my son showed me about that housing unit with those poor people he's protecting."

Maury nodded again, still morosely.

Patting my dad on the arm Pris said, "Yes, Jerome; he's a civic-minded fellow. You'll like him."

My dad beamed at Pris and then at me. "It looks as if everything is turning out good, nicht Wahr?"

We all nodded, with a mixture of gloom and fear.

The door opened and Bob Bundy appeared, holding a folded piece of paper. Coming up to me he said, "Here's a note from Lincoln."

I unfolded it. It was a short note of sympathy:

Mr. Louis Rosen.

My Dear Sir:

I wish to enquire of your condition, with hope that you have improved somewhat. Yours Truly,

A. Lincoln

"I'll go out and thank him," I said to Maury.

"Do that," Maury said.

nine

As we waited in the cold wind at the concourse entrance for the flight from Seattle to land I said to myself, How'll

he differ from the other people?

The Boeing 900 landed; it taxied along the runway. The ramps were run out, the doors opened, stewardesses helped people out, and at the bottom of each ramp airline employees made sure the passengers did not take pratfalls onto the asphalt ground. Meanwhile, luggage-carrying vehicles raced around like large bugs, and off to one side a Standard Stations truck had parked with its red lights on.

Every sort of passenger started appearing, issuing forth from the plane at both doors and swarming rapidly down the ramps. Around us friends and relatives pushed forward and out as far onto the field as was allowed. Beside me Maury stirred restlessly.

"Let's get out there and greet him.

Both he and Pris started going, so I went along with them. We were halted by an airline official in a blue uniform who waved us back. However Maury and Pris ignored him; I did so, too, and we reached the bottom of the first class ramp. There we halted. The passengers, one by one, descended, some of them smiling, the businessmen with no expression on their faces. Some of them looked tired.

"There he is," Maury said.

Down the first class ramp came a slender man in a gray suit, smiling slightly, his topcoat over his arm. As he got nearer to us it seemed to me that his suit fitted more naturally than the other men's. No doubt custom-tailored, probably in England or Hong Kong. And he looked more relaxed. He wore greenish dark glasses, rimless; his hair, as in the photos, was cut extra short, almost a GI sort of crewcut. Behind him came a jolly-looking woman I knew: Colleen Nild, with a clipboard and papers under her arm.

"Three in the party," Pris observed. There was another man, very short, portly, in all ill-fitting brown suit with sleeves and trousers too long, a reddish-faced man with a Doctor Dolittle nose and long thinning lank black hair combed across his domed skull. He wore a stickpin in his tie, and the way he strode after Barrows with his short legs convinced me that here was an attorney; this was the way trial lawyers take off from their seat in court, like the manager of a baseball club striding out onto the field to protest a decision. The gesture of protest, I decided as I watched him, is the same in all professions; you get right out there, talking and waving your arms as you come.

The lawyer was beaming in an alert, active fashion, talking away at a great rate to Colleen Nild; he looked to me to be a likeable sort of guy, someone with enormous bouncy energy, just the sort of attorney I would have expected Barrows to have on retainer. Colleen, as before, wore a heavy blueblack quilted cloth coat that hung like lead. This time she was dressed up: she had on gloves, a hat, new leather mailpouch type purse. She was listening to the attorney; as he talked away he gestured in all directions, like an interior decorator or the foreman of a construction crew. Something about him gave me a friendly warm feeling and I felt less tense, now. The lawyer looked, I decided, like a great kidder. I felt I understood him.

Now here came Barrows to the bottom of the ramp, his eyes invisible behind his dark glasses, his head down slightly so as to keep an eye on what his feet were doing. He was listening to the attorney. As he started out onto the field Maury stepped forward.

"Mr. Barrows!"

Turning and halting, moving out of the way so those behind him could step from the ramp, Barrows in one movement of his body lithely swiveled and held out his hand. "Mr. Rock?"

"Yes sir," Maury said, shaking hands. Colleen Nild and the attorney clustered around; so did I and Pris. "This is Pris Frauenzimmer. And this is my partner, Louis Rosen."

"Happy, Mr. Rosen." Barrows shook hands with me. "This is Mrs. Nild, my secretary. This gentleman is Mr. Blunk, my council." We all shook hands around. "Cold out here on the field, isn't it?" Barrows started for the entrance of the building. He moved so swiftly that we all had to gallop after him like a flock of big awkward animals. Mr. Blunk's short legs pumped away as in a speeded-up old movie; he did not seem to mind, however; he continued to radiate cheerfulness.

"Boise," he declared, gazing around him. "Boise, Idaho. What will they think of next?"

Colleen Nild, falling in beside me, greeted me. "Nice to see you again, Mr. Rosen. We found the Stanton creature quite delightful."

"A fabulous construct," Blunk boomed back at us; we were lagging behind. "We thought it was from the Bureau of Internal Revenue." He gave me a hearty personal smile.

Up front walked Barrows and Maury; Pris had dropped back because the concourse door was so narrow. Barrows and Maury passed on inside and Pris followed next, then Mr. Blunk, then Colleen Nild and I taking up the rear. By the time we had passed through the building and outside again onto the street entrance where the taxis waited, Barrows and Maury had already located the limou-

sine; the uniformed driver was holding one of the rear doors open and Barrows and Maury were crawling inside.

"Luggage?" I said to Mrs. Nild.

"No luggage. Too time-consuming to wait for it. We're only going to be here a few hours and then we're flying back. Probably late tonight. If we should stay over we'll buy what we need."

"Um," I said, impressed.

The rest of us also crawled into the limousine; the driver hopped around, and soon we were out in traffic, on our way into Boise proper.

"I don't see how the Stanton can set up a law office in Seattle," Maury was saying to Barrows. "It's not licensed to practice law in the State of Washington."

"Yes, I think you'll be seeing it again one of these days." Barrows offered Maury, then me, a cigarette from his case.

Summing it up I decided that Barrows differed from the rest of us in that he looked as if he had grown his gray English wool suit the way an animal grows its fur; it was simply part of him, like his nails and his teeth. He was utterly unconscious of it, as well as of his tie, his shoes, his cigarette case—he was unconscious of everything about his appearance.

So that's how it is to be a multimillionaire, I decided.

A long jump from the bottom rung like myself, where the preoccupation is, I wonder if my fly is unzipped. That's the dregs, people like me, stealing swift covert glances down. Sam K. Barrows never stole a covert look at his fly in his life. If it was unzipped he'd simply zip it up. I wish I was rich, I said to myself.

I felt depressed. My condition was

hopeless. I had not even gotten to the stage of worrying about the knot of my necktie, like other men. I probably never would.

And in addition Barrows was a really good-looking guy, sort of Robert Montgomery-shaped. Not handsome like Montgomery; for now Barrows had removed his dark glasses and I saw that he had puffy wrinkled skin beneath his eyes. But he's got that athletic build, probably from playing handball in a fivethousand dollar private handball court. And he's got a topnotch doctor who doesn't let him swill cheap liquor or beer of any kind; he never eats in drive-ins . . . probably never eats any cut of pork, and only those eye lambchops, and only steak and roast type cuts of beef.

Naturally he hasn't got an ounce of extra flab on him, with a diet like that. It depressed me even more.

Now I could see how those bowls of stewed prunes at six o'clock in the morning and those four-mile jogs through the deserted early dawn streets at five a.m. fitted in. The eccentric young millionaire whose picture appeared in *Look* was not going to drop dead at forty from heart trouble; he intended to live and enjoy his wealth. No widow would inherit it, contrary to the national pattern.

Eccentric, hell.

Smart.

The time was a little after seven in the evening as our limousine entered Boise itself, and Mr. Barrows and his two companions announced that they had not eaten dinner. Did we know of a good restaurant in Boise?

There is no good restaurant in Boise.

"Just a place where we can get fried prawns," Barrows said. "A light supper

of that sort. We had a few drinks on the plane but none of us ate; we were too busy yaking."

We found a passable restaurant. The head waiter led us to a leather horseshoe-shaped booth in the rear; we took off our coats and seated ourselves.

We ordered drinks.

"Did you really make your first pile playing poker in the Service?" I asked Barrows.

"No, craps it was. A six-month floating crapgame. Poker takes skill; I have luck."

Pris said, "It wasn't luck that got you into real estate."

"No, it was because my mother used to rent out rooms in our old place in L.A.," Barrows eyed her.

"Nor," Pris said in the same tense voice, "was it luck that has made you the Don Quixote who successfully tilted the Supreme Court of the United States into ruling against the Space Agency and its greedy monopolizing of entire moons and planets."

Barrows nodded at her. "You're generous in your description. I had in my possession what I believed to be valid title to parcels on Luna, and wanted to test the validity of those titles in such a way that they'd never be challenged again. Say, I've met you."

"Yes," Pris said, bright eyed.

"Can't place you, though."

"It was only for a moment. In your office. I don't blame you for not remembering. I remember you, however." She had not taken her eyes from the man.

"You're Rock's daughter?"

"Yes, Mr. Barrows."

She looked a lot better, tonight. Her hair had been done, and she wore enough make-up to hide her paleness, but not so

much as to give her the garish mask-like appearance which I had noticed in the past. Now that she had taken off her coat I saw that she wore an attractive fluffy jersey sweater, short-sleeved, with one piece of gold jewelry—a pin shaped like a snake—over her right breast. By god, I decided, she had a bra on, too, the kind that created bulk where there was no bulk. For this extraordinary occasion Pris had obtained a bosom. And, when she rose to hang up her coat, I saw that in her high, very thin heels she appeared to have nice legs. So, when the occasion demanded, she could fix herself up more than correctly.

"Let me take that," Blunk said, sweeping her coat away from her and bouncing over to the rack to hang it on a hanger. He returned, bowed, smiled merrily at her and reseated himself. "Are you sure," he boomed, "that this dirty old man—" He indicated Maury. "Is actually your father? Or is it not the case that you're committing a sin, the sin of statutory rape, sir?" He pointed his finger in a mock-epic manner at Maury. "Shame, sir!" He smiled at us all.

"You just want her for yourself," Barrows said, biting off the fantail of a prawn and laying it aside. "How do you know she's not another of those simulacrum things, like the Stanton one?"

"I'll take a dozen gross!" Blunk cried, his eyes shining.

Maury said, "She really is my daughter. She's been away at school." He looked uncomfortable.

"And come back—" Blunk lowered his voice. In an exaggerated aside he whispered hoarsely to Maury, "*In the family way*, is that it?"

Maury grinned uneasily.

Changing the subject I said, "It's nice to see you again, Mrs. Nild."

"Thank you."

"That Stanton robot scared the slats out of us," Barrows said to Maury and I, his elbows resting on the table, arms folded. He had finished his prawns and he looked well-fed and sleek. For a man who started out on stewed prunes he seemed to enjoy his food to the hilt. I had to approve of that, personally; it seemed to me to be an encouraging sign.

"You people are to be congratulated!" Blunk said. "You produced a monster!" He laughed loudly, enjoying himself. "I say kill the thing! Get a mob with torches! Onward!"

We all had to laugh at that.

"How did the Frankenstein monster finally die?" Colleen asked.

"Ice," Maury said. "The castle burned down and they sprayed hoses on it and the water became ice."

"But the monster was found frozen in the ice in the next movie," I said. "And they revived him."

"He disappeared into a pit of bubbling lava," Blunk said. "I was there. I kept a button from his coat." From his coat pocket he produced a button which he displayed to each of us in turn. "Off the world-famous Frankenstein monster."

Colleen said, "It's off your vest, David."

"What!" Blunk glanced down, scowling. "So it is! It's my own button!" Again he laughed.

Barrows, investigating his teeth with the edge of his thumb nail, said to Maury and me, "How much did it set you back to put together the Stanton robot?"

"Around five thousand," Maury said.

"And how much can it be produced in quantity for? Say, if several hundred thousand are run off."

"Hell, Maury said quickly, "I would say around six hundred dollars. That assumes they're identical, have the same ruling monads and are fed the same tapes."

"What it is," Barrows said to him, "is a life-size version of the talking dolls that were so popular in the past; correct—"

"No," Maury said, "not exactly."

"Well, it talks and walks around," Barrows said. "It took a bus to Seattle. Isn't that the automaton principle made a little more complex?" Before Maury could answer he continued, "What I'm getting at is, there really isn't anything new here, is there?"

Silence.

"Sure," Maury said. He did not look very merry, now. And I noticed that Pris, too, seemed abruptly humorless.

"Well, would you spell it out, please," Barrows said, still with his pleasant tone, his informality. Picking up his glass of Green Hungarian he sipped. "Go ahead, Rock."

"It's not an automaton at all," Maury said. "You know the work of Grey Walter in England? The turtles? It's what's called a homeostatic system. It's cut off from its environment; it produces its own responses. It's like the fully automated factory which repairs itself. Do you know what 'feedback' refers to? In electrical systems there—"

Dave Blunk put his hand on Maury's shoulder. "What Mr. Barrows wants to know has to do with the patentability, if I may use such an unwieldy term, of your Stanton and Lincoln robots."

Pris spoke up in a low, controlled voice. "We're fully covered at the patent office. We have expert legal representation."

"That's good to hear," Barrows said,

smiling at her as he picked his teeth. "Because otherwise there's nothing to buy."

"Many new principles are involved," Maury said. "The Stanton electronic simulacrum represents work developed over a period of years by many research teams in and out of Government and if I may say so myself we're all abundantly pleased, even amazed, at the terrific results... as you saw yourself when the Stanton got off the Greyhound bus at Seattle and took a taxi to your office."

"It walked," Barrows said.

"Pardon?"

"I say, it walked to my office from the Greyhound bus station."

"In any case," Maury said, "what we've achieved here has no precedent in the electronics trade."

After dinner we drove to Ontario, arriving at the office of MASA ASSOCIATES ten o'clock.

"Funny little town," Dave Blunk said, surveying the empty streets. "Everybody in bed."

"Wait until you see the Lincoln," Maury said as we got from the car.

They had stopped at the showroom window and were reading the sign that had to do with the Lincoln.

"I'll be a son of a gun," Barrows said. He put his face to the glass, peering in. "No sign of it right now, though. What does it do, sleep at night? Or do you have it assassinated every evening around five, when sidewalk traffic is heaviest?"

Maury said, "The Lincoln is probably down in the shop. We'll go down there." He unlocked the door and stood aside to let us enter.

Presently we were standing at the entrance to the dark repairshop as Maury

groped for the light switch. At last he found it.

There, seated in meditation, the Lincoln. It had been sitting quietly in the darkness.

Barrows said at once, "Mr. President." I saw him nudge Colleen Nild. Blunk grinned, looking enthusiastic, with the greedy, good-humored warmth of a hungry but confident cat. Clearly, he was getting enormous enjoyment out of all this. Mrs. Nild craned her neck, gasped faintly, obviously impressed. Barrows, of course, walked on into the repair-shop without hesitation, knowing exactly what to do. He did not hold his hand out to the Lincoln; he halted a few paces from it, showing respect.

Turning his head the Lincoln regarded him with a melancholy expression. I had never seen such despair on a face before, and I shrank back; so did Maury. Pris did not react at all; she merely remained standing in the doorway. The Lincoln rose to its feet, hesitated, and then by degrees the expression of pain faded from its face; it said in a broken, reedy voice—completely at contrast to its tall frame, "Yes sir." It inspected Barrows from its height, with kindness and interest, its eyes twinkling a little.

"My name is Sam Barrows," Barrows said. "It's a great honor to meet you, Mr. President."

"Thank you, Mr. Barrows," the Lincoln said. "Won't you and your friends enter and accommodate yourselves?"

To me Dave Blunk gave a wide-eyed silent whistle of astonishment and awe. He clapped me on the back. "Wheee," he said softly.

"You remember me, Mr. President," I said to the simulacrum.

"Yes, Mr. Rosen."

"What about me?" Pris said drily.

The simulacrum made a faint, clumsy, formal bow. "Miss Frauenzimmer. And you, Mr. Rock . . . the person on which this edifice rests, does it not?" The simulacrum chuckled. "The owner, or co-owner, if I am not mistook."

"What have you been doing?" Maury asked it.

"I was thinking about a remark of Lyman Trumbull's. As you know, Judge Douglas met with Buchanan and they talked over the Lecompton Constitution and Kansas. Judge Douglas later came out and fought Buchanan, despite the threat, it being an Administration measure. I did not support Judge Douglas, as did a number of those dear to me among my own party, the Republicans and their cause. But in Bloomington, where I was toward the end of 1857, I saw no Republicans going over to Douglas, as one saw in the *New York Tribune*. I asked Lyman Trumbull to write me in Springfield to tell me whether—"

Barrows interrupted the Lincoln simulacrum, at that point. "Sir, if you'll excuse me. We have business to conduct, and then I and this gentleman, Mr. Blunk, and Mrs. Nild, here, have to fly back to Seattle."

The Lincoln bowed. "Mrs. Nild." He held out his hand, and, with a snorting laugh, Colleen Nild went forward to shake hands with him. "Mr. Blunk." He gravely shook hands with the short plump attorney. "You're not related to Nathan Blunk of Cleveland, are you, sir?"

"No, I'm not," Blunk answered, shaking hands vigorously. "You were an attorney at one time, weren't you, Mr. Lincoln?"

"Yes sir," the Lincoln replied.

"My profession."

"I see," the Lincoln said, with a smile. "You have the divine ability to wrangle over trifles."

Blunk boomed out a hearty laugh.

Coming up beside Blunk, Barrows said to the simulacrum, "We flew here from Seattle to discuss with Mr. Rosen and Mr. Rock a financial transaction involving backing of MASA ASSOCIATES by Barrows Enterprises. Before we finalize we wanted to meet you and have a talk. We met the Stanton recently; he came to visit us on a bus. We'd acquire you and Stanton both as assets of MASA ASSOCIATES, as well as basic patents. As an ex-attorney you're probably familiar with transactions of this sort. I'd be curious to ask you something. What's your sense of the modern world? Do you know what a vitamin is, for instance? Do you know what year this is?" He scrutinized the simulacrum keenly.

The Lincoln did not answer immediately, and while it was getting ready, Maury waved Barrows over to one side. I joined them.

"That's all beside the point," Maury said. "You know perfectly well it wasn't made to handle topics like that."

"True," Barrows agreed. "But I'm curious."

"Don't be. You'd feel funny if you burned out one of its primary circuits."

"Is it that delicate?"

"No," Maury said, "but you're needing it."

"No I'm not. It's so convincingly life-like that I want to know how conscious it is of its new existence."

"Leave it alone," Maury said.

Barrows gestured abruptly. "Certainly." He beckoned to Colleen Nild and their attorney. "Let's conclude our business and start back to Seattle. David, are you satisfied by what you see?"

"No," Blunk said, as he joined us. Colleen remained with Pris and the simulacrum; they were asking it something about the debates with Stephen Douglas. "It doesn't seem to function nearly as well as the Stanton one, in my opinion."

"How so?" Maury demanded.

"It's—halting."

"It just came to," I said.

"No, it's not that," Maury said. "It's a different personality. Stanton's more inflexible, dogmatic." To me he said, "I know a hell of a lot about those two people. Lincoln was this way. I made up the tapes. He had periods of brooding, he was brooding here just now when we came in. Other times he's more cheerful." To Blunk he said, "That's his character. If you stick around awhile you'll see him in other moods. Moody—that's what he is. Not like Stanton, not positive. I mean it's not an electrical failure; it's supposed to be that way."

"I see," Blunk said, but he did not sound convinced.

"I know what you refer to," Barrows said. "It seems to stick."

"Right," Blunk said. "I'm not sure in my own mind that they've got this perfected. There may be a lot of bugs left to iron out."

"And this cover-up line," Barrows said, "about not questioning it as to contemporary topics—you caught that."

"I certainly did," Blunk said.

"Sam," I said to Barrows, plunging in, "you don't get the point at all. Maybe that's due to your having just made that plane flight from Seattle and then that long drive by car from Boise. Frankly, I thought you grasped the principle underlying the simulacra, but let's let the subject go, for the sake of amicability. Okay?" I smiled.

Barrows contemplated me without answering; so did Blunk. Off in the corner Maury perched on a workstool, with his cigar giving off clouds of lonely blue smoke.

"I understand your disappointment with the Lincoln," I said. "I sympathize. To be frank, the Stanton one was coached."

"Ah," Blunk said, his eyes twinkling.

"It wasn't my idea. My partner here was nervous and he wanted it all set up." I wagged my head in Maury's direction. "He was wrong to do it, but anyhow that's a dead issue; what we want to deal with is the Lincoln simulacrum because that's the basis of MASA ASSOCIATES' genuine discovery. Let's walk back and query it further."

The three of us walked back to where Mrs. Nild and Pris stood listening to the tall, bearded, stooped simulacrum.

"... quoted me to the effect that the Negro was included in that clause of the Declaration of Independence which says that all men were created equal. That was at Chicago Judge Douglas says I said that, and then he goes on to say that at Charleston I said the Negro belonged to an inferior race. And that I held it was not a moral issue, but a question of degree, and yet at Galesburg I went back and said it was a moral question once more." The simulacrum smiled its gentle, pained smile at us. "Thereupon some fellow in the audience called out, 'He's right.' I was glad somebody thought me right, because it seemed to myself that Judge Douglas had me by the coat tails."

Pris and Mrs. Nild laughed appreciatively. The rest of us stood silently.

"About the best applause Judge Douglas got was when he said that the whole Republican Party in the northern

part of the state stands committed to the doctrine of no more slave states, and that this same doctrine is repudiated by the Republicans in the other part of the state . . . and the Judge wondered whether Mr. Lincoln and his party do not present the case which Mr. Lincoln cited from the Scriptures, of a house divided against itself which cannot stand." The simulacrum's voice had assumed a droll quality. "And the Judge wondered if my principles was the same as the Republican Party's. Of course, I don't get the chance to answer the Judge until October at Quincy. But I told him there, that he could argue that a horse-chestnut is the same as a chestnut horse. I certainly had no purpose to introduce political and social equality between the white and black races. There is a physical difference between the two, which, in my judgment, will probably forever forbid their living together on the footing of perfect equality. But I hold the Negro as much entitled to the right of life, liberty and the pursuit of happiness as any white man. He is not my equal in many respects, certainly not in color—perhaps not in intellectual and moral endowments. But in the right to eat the bread which his own hand earns, without leave of anybody else, he is my equal and the equal of Judge Douglas, and the equal of every other man." The simulacrum paused. "I received a few good cheers myself at that moment."

To me Sam Barrows said, "You've got quite a tape reeling itself off inside that thing, don't you?"

"It's free to say what it wants," I told him.

"Anything? *You mean it wants to speechify?*" Barrows obviously did not believe me. "I don't see that it's anything but the familiar mechanical man

gimmick, with this dressed-up historical guise. The same thing was demonstrated at the 1939 San Francisco World's Fair, Pedro the Vodor."

This exchange between Barrows and I had not escaped the attention of the Lincoln simulacrum. In fact both it and Pris and Mrs. Nild were now watching us and listening to us.

The Lincoln said to Mr. Barrows, "Did I not hear you, a short while ago, express the notion of 'acquiring me,' as an asset of some kind? Do I recall fairly? If so, I would wonder how you could acquire me or anyone else, when Miss Frauenzimmer tells me that there is a stronger impartiality between the races now than ever before. I am a bit mixed on some of this but I believe there is no more 'acquiring' of any human in the world today, even in Russia where it is notorious."

Barrows said, "That doesn't include mechanical men."

"You refer to myself?" the simulacrum said.

With a laugh Barrows said, "All right, yes I do."

Beside him the short lawyer David Blunk stood plucking at his chin thoughtfully, glancing from Barrows to the simulacrum and back.

"Would you tell me, sir," the simulacrum said, "what a man is?"

"Yes, I would," Barrows said. He caught Blunk's eye; obviously, Barrows was enjoying this. "A man is a forked radish." He added, "Is that definition familiar to you, Mr. Lincoln?"

"Yes sir, it is," the simulacrum said. "Shakespeare has his Falstaffspeak that, does he not?"

"Right," Barrows said. "And I'd add to that, A man can be defined as an animal that carries a pocket handkerchief.

How about that? Mr. Shakespeare didn't say that."

"No sir," the simulacrum agreed. "He did not." The simulacrum laughed heartily. "I appreciate your humor, Mr. Barrows. May I use that remark in a speech?"

Barrows nodded.

"Thank you," the simulacrum said. "Now, you've defined a man as an animal which carries a pocket handkerchief. But what is an animal?"

"I can tell you you're not," Barrows said, his hands in his trouser pockets; he looked perfectly confident. "An animal has a biological heritage and makeup which you lack. You've got valves and wires and switches. You're a machine. Like a—" He considered. "Spinning jenny. Like a steam engine." He winked at Blunk. "Can a steam engine consider itself entitled to protection under the clause of the Constitution which you quoted? Has it got a right to eat the bread it produces, like a white man?"

The simulacrum said, "Can a machine talk?"

"Sure. Radios, phonographs, tape recordings, telephones—they all yak away like mad."

The simulacrum considered. It did not know what those were, but it could make a shrewd guess; it had had enough time by itself to do a good deal of thinking. We could all appreciate that.

"Then what, sir, is a machine?" the simulacrum asked Barrows.

"You're one. These fellows made you. You belong to them."

The long, lined, dark-bearded face twisted with weary amusement as the simulacrum gazed down at Barrows. "Then you, sir, are a machine. For you have a Creator, too. And, like 'these fellows,' He made you in His image.

I believe Spinoza, the great Hebrew scholar, held that opinion regarding animals; that they were clever machines. The critical thing, I think, is the soul. A machine can do anything a man can—you'll agree to that. But it doesn't have a soul."

"There is no soul," Barrows said. "That's pap."

"Then," the simulacrum said, "a machine is the same as an animal." It went on slowly in its dry, patient way, "and an animal is the same as a man. Is that not correct?"

"An animal is made out of flesh and blood, and a machine is made out of wiring and tubes, like you. What's the point of all this? You know darn well you're a machine; when we came in here you were sitting here alone in the dark thinking about it. So what? I know you're a machine; I don't care. All I care is whether you work or not. As far as I'm concerned you don't work well enough to interest me. Maybe later on when you have fewer bugs. All you can do is spout on about Judge Douglas and a lot of political, social twaddle that nobody gives a damn about."

His attorney, Dave Blunk, turned to regard him thoughtfully, still plucking at his chin.

"I think we should start back to Seattle," Barrows said to him. To me and Maury he said, "Here's my decision. We'll come in, but we have to have a controlling interest so we can direct policy. For instance, this Civil War notion is pure absurdity. As it stands."

Taken absolutely by surprise I stammered, "W-what?"

"The Civil War scheme could be made to bring in a reasonable return in only one way. You'd never think of it in a million years. Refight the Civil War with

robots; yes. But the return comes in when it's set up so you can bet on the outcome."

"What outcome?" I said.

"Outcome as to which side prevails," Barrows said. "The blue or the gray."

"Like the World Series," Dave Blunk said, frowning thoughtfully.

"Exactly." Barrows nodded.

"The South couldn't win," Maury said. "It had no industry."

"Then set up a handicap system," Barrows said.

Maury and I were at a loss for words.

"You're not serious," I finally managed.

"I am serious."

"A national epic made into a horse-race? A dog race? A lottery?"

Barrows shrugged. "I've given you a million-dollar idea. You can throw it away; that's your privilege. I can tell you that there's no other way a Civil War use of your dolls can be made to pay. Myself, I would put them to a different use entirely. I know where your engineer, Robert Bundy, came from; I'm aware that he formerly was employed by the Federal Space Agency in designing circuits for their simulacra. After all, it's of the utmost importance to me to know as much about space-exploration hardware as can be known. I'm aware that your Stanton and Lincoln are minor modifications of Government systems."

"Major," Maury corrected hoarsely. "The Government simulacra are simply mobile machines that creep about on an airless surface where no humans could exist."

Barrows said, "I'll tell you what I envision. Can you produce simulacra that are friendly-like?"

"What?" both I and Maury said to-

gether.

"I could use a number of them designed to look exactly like the family next door. A friendly, helpful family that would make a good neighbor. People you'd want to move in near, people like you remember from your childhood back in Omaha, Nebraska."

After a pause Maury said, "He means that he's going to sell lots to them. So they can build."

"Not sell," Barrows said. "Give. Colonization has to begin; it's been put off too long as it is. The Moon is barren and desolate. People are going to be lonely, there. It's difficult, we've found, to get anyone to go first. They'll buy the land but they won't settle on it. We want towns to spring up. To do that possibly we've got to prime the pump."

"Would the actual human settlers know that their neighbors are merely simulacra?" I asked.

"Of course," Barrows said smoothly.

"You wouldn't try to deceive them?"

"Hell no," Dave Blunk said. "That would be fraud."

I looked at Maury; he looked at me.

"You'd give them names," I said to Barrows. "Good old homey American names. The Edwards family, Bill and Mary Edwards and their son Tim who's seven. They're going to the Moon; they're not afraid of the cold and the lack of air and the empty, barren wastes."

Barrows eyed me.

"And as more and more people got hooked," I said, "you could quietly begin to pull the simulacra back out. The Edwards family and the Jones family and the rest—they'd sell their houses and move on. Until finally your subdivisions, your tract houses, would be populated by authentic people. And no one would ever know."

"I wouldn't count on it working," Maury said. "Some authentic settler might try to sleep with Mrs. Edwards and then he'd find out. You know how life is in housing tracts."

Dave Blunk brayed out in a hee-haw of laughter. "Very good!"

Placidly, Barrows said, "I think it would work."

"You have to," Maury said. "You've got all those parcels of land up there in the sky. So people are loathe to emigrate . . . I thought there was a constant clamor, and all that was holding them back was the strict laws."

"The laws are strict," Barrows said, "but—let's be realistic. It's an environment up there that once you've seen it . . . well, let's put it this way. About ten minutes is enough for most people. I've been there. I'm not going again."

I said, "Thanks for being so candid with us, Barrows."

Barrows said, "I know that the Government simulacra have functioned to good effect on the Lunar surface. I know what you have: a good modification of those simulacra. I know how you acquired the modification. I want the modification, once again modified, this time to my own concept. Any other arrangement is out of the question. Except for planetary exploration your simulacra have no genuine market value. It's a foolish pipe dream, this Civil War stunt. I won't do business with you on any understanding except as I've outlined. And I want it in writing." He turned to Blunk, and Blunk nodded soberly.

I gaped at Barrows, not knowing whether to believe him; was this serious? Simulacra posing as human colonists, living on the Moon in order to create an illusion of prosperity? Man, woman and child simulacra in little living rooms,

eating phony dinners, going to phony bathrooms . . . it was horrible. It was a way of bailing this man out of the troubles he had run into; did we want to hang our fortunes and lives onto that?

Maury sat puffing away miserably on his cigar; he was no doubt thinking along the lines I was.

And yet I could see Barrows' position. He had to persuade people in the mass that emigration to the Moon was desirable; his economic holdings hinged on it. And perhaps the end justified the means. The human race had to conquer its fear, its squeamishness, and enter an alien environment for the first time in its history. This might help entice it; there was comfort in solidarity. Heat and air domes protecting the great tracts would be built . . . living would not be physically bad—it was only the psychological reality which was terrible, the aura of the Lunar environment. Nothing living, nothing growing . . . changeless forever. A brightly-lit house next door, with a family seated at their breakfast table, chatting and enjoying themselves: Barrows could provide them, as he would provide air, heat, houses and water.

I had to hand it to the man. From my standpoint it was fine except for one single joker. Obviously, every effort would be made to keep the secret. But if the efforts were a failure, if news got out, probably Barrows would be financially ruined, possibly even prosecuted and sent to jail. And we would go with him.

How much else in Barrows' empire had been concocted in this manner? Appearance built up over the fake . . .

I managed to switch the topic to the problems involved in a trip back to Seattle that night; I persuaded Barrows to phone

a nearby motel for rooms. He and his party would stay until tomorrow and then return.

The interlude gave me a chance to do some phoning of my own. Off by myself where no one could overhear me I telephoned my dad at Boise.

"He's dragging us into something too deep for us," I told my dad. "We're out of our depth and none of us know what to do. We just can't handle this man."

Naturally my dad had already gone to bed. He sounded befuddled. "This Barrows, he is here now?"

"Yes. And he's got a brilliant mind. He even debated with the Lincoln and thinks he won. Maybe he did win; he quoted Spinoza, about animals being clever machines instead of alive. Not Barrows—Lincoln. Did Spinoza really say that?"

"Regretfully I must confess it."

"When can you get down here?"

"Not tonight," my father said.

"Tomorrow, then. They're staying over. We'll knock off and resume tomorrow. We need your gentle humanism so be damn sure to show up."

I hung up and returned to the group. The five of them—six, if you counted the simulacrum—were together in the main office, chatting.

"We're going down the street for a drink before we turn in," Barrows said to me. "You'll join us, of course." He nodded toward the simulacrum. "I'd like it to come along, too."

I groaned to myself. But aloud I agreed.

Presently we were seated in a bar and the bartender was fixing our drinks.

The Lincoln had remained silent during the ordering, but Barrows had ordered a Tom Collins for it. Now Barrows handed it the glass.

"Cheers," Dave Blunk said to the

(Continued on page 140)

The Story Behind The Cover

SONS OF MAN

Greg Benford's first sale was a prize-winner in the short-story contest held by The Magazine of Fantasy & Science Fiction in 1965; his most recently published story was "Deeper Than The Darkness," the cover-story for the April, 1969 issue of that magazine. Since then he's turned that story into a novel (to be published by Ace Books), and turned his attention to AMAZING STORIES with both the cover story for this issue, and a new column, The Science in Science Fiction, with David Book, which debuts elsewhere in this issue. A physicist at the Lawrence Radiation Laboratory, Greg lives with his wife, Joan, in the hills of Walnut Creek, across the bay from San Francisco.

GREG BENFORD

Raymond King staggered out of the forest, eyes squinting with pain. He collapsed with a thin groan at the edge of the clearing.

There was a burn in his side. It passed through layers of parka, shirt and insulation to make an angry red slash a foot wide over his ribs. King rolled over onto it for an instant. His ruddy face clenched in agony and he lost consciousness.

Alexander Livingstone stood slowly washing dishes after a solid but uninspired lunch of canned chili. The window over the sink was partially fogged. Through it he caught a flicker of movement in the clearing outside and saw the man fall.

He pulled on his heavy lumberjack jacket as he went out the door and

blinked as the cold reached his unprotected face.

King was barely visible in the two feet of snow that had drifted in the clearing from the first December fall of two weeks ago. When Livingston reached him and saw the wound it was obvious that nothing could be done until he was inside.

Using a shoulder carry the big man managed to stagger the fifty yards without stumbling or pitching the body into the snow. Stripping his patient was harder because the harness of King's back pack had gnarled his clothing until it became impossible to get it off without touching the charred flesh. He had to cut King's shirt and undershirt.

Cleaning, treating and bandaging the wound took more than an hour. Dirt and pine needles were caught among the

Illustrated by TED WHITE

blackened, flaky skin and as the heat of the cabin reached it the capillaries opened and began to bleed.

When it was done Livingstone's first thought was to try for the emergency call station fifteen miles away. The nearest fire ranger road was only four miles and his jeep was parked there. But the going was mostly uphill and as he began to dress for the walk he noticed that snow was falling again, this time in a hard swift wind that bowed the tops of the pines and howled at the corners of his cabin. At his age such a march would be too great a risk.

So he prepared beef broth for his patient and got him to sip a few spoonfuls. Then he waited. He mused over the strange nature of the wound, almost like a cut in its clean outline. But a burn, undeniably, and a bad one.

It was only then that he noticed the pack lying where he had cast it aside. Sticking out of the top as though it had been jammed in hurriedly was a gray metal tube.

Livingstone fished it out. The tube thickened at its base and small metal arches like bit grips ran down the sides. It was three feet long and had several extrusions like toggle switches in the base. It was like nothing Livingstone, a trained mechanic of thirty years' experience, had ever seen before.

Something stirred at the window. He glanced up and caught a glimpse of some dark form with eyes, crouched over to look in. In the silence of the snowfall it moved away like a ghost.

Livingstone put down the tube and raced to the door, ignoring the bite of the cold as he ran around the side of the cabin. There was no one there. The pines gave back to him the infinite white quiet of gathering dusk.



Under the window there were footprints. Not the tracks of a boot, but a foot with clearly distinguishable toes.

The print was almost two feet long.

II

Earth rose.

A blue-white tip appeared over the crags that shielded the temporary base from Clavius Center, the hub of man's incursions on the moon. B. Terrance Wilk watched it inch into view for a moment, thinking of the sea of common pleasures—like breathing air that didn't taste of metal and oil—that waited for him a quarter of a million miles away.

But he would only get back to them, of course, when this job was done. He cycled the lock that Maintenance had recently set into the crinkled skin of the towering mass above him, waited for the green light and stepped off the floor of the moon into the cylindrical vault.

A moment later he stood in an environment far stranger than the vacuum wastes outside. Even now, a month into the project, it almost frightened him. There was a feeling here, a brooding presence of depth and the unknowable that made it impossible to ever completely relax as he worked.

He was inside an alien space ship.

Ancient, to be sure. Unoccupied by whatever had built it. The physics people said it had lain here, shattered on the rocks, for at least a hundred thousand years and more probably a million or more. It was hard to judge, since it had lain in hard vacuum. Counts of the number of micrometeorites that penetrated the hull gave the most accurate estimate, but even that was vague.

It was old. And one of a kind.

But more importantly, now it was alive.

Whoever built it couldn't have been totally unlike man. They used electric power, though after five months the generators still hadn't been found, or the power source.

So now this one corner of the spherical ship—or rather, the vessel that was now a smashed hemisphere on a pile of rubble—this corner had power, AC current at a frequency considerably higher than the hundred and twenty cycles Wilk was accustomed to.

He shucked off his helmet and yoke, set them carefully in their racks so as not to disturb any of the wall-mounted devices Base Control had decided not to try to investigate yet, and walked with a sliding low-gee gait to his chair.

The path he followed was marked off by ropes. He was not to venture beyond these barriers. On each side of him stretched away dark forms of dead alien machinery. No one knew what it was, and Wilk wasn't to touch it until they told him to.

He sat down before an imposing black panel and pressed a switch something like a vertically mounted paper clip. Why it was shaped that way he didn't know. All anybody knew was that, with the power on, it gave the only lead they had into the minds of the aliens.

Half a year ago a scouting party found the ship about five hundred kilometers from Calvius Center. The news produced spectacular responses from all the governments of the world, awe in the mind of the average man and deep suspicion in the religious cults that were growing of late. A quick search showed that there were no more wrecks on the Moon. As much of a scientific expedition as could be mustered, considering the low funding for science in the face of the famine and pollution problems, was dispatched.

When the discovery was made that ordinary AC current would activate some few of the long-dead alien circuits, interest picked up.

The screen in front of Wilk lit, flickered, turned green and then slid through the color spectrum. There was no sound. It was a direct link into the ship's computer—or at least that was the best guess, since the computer hadn't been found yet—and thus far the only operating circuits in the ship that made any sense. It was found by accident. This level of the wreck was sealed off and pressurized so an operator could work in relative comfort.

Terry Wilk checked the visual link to Clavius Center and said "Hello. Reading output from core," into the mike at his elbow. The watch at Clavius sent back a high-pitched greeting.

Wilk began punching the other paper clip switches lined up before him. He followed the sequences he had noted down on previous runs. A swirl of color formed and suddenly condensed into a pattern of symbols; curls, slashes, marks tantalizingly close to Persian script. Inserted in the middle of the display was a simple diagram involving triangles locked together in a confusing pattern.

This had been the first readout Terry obtained, after weeks of carefully working his way through the innumerable sequences possible on the board of switches. By itself it was useless, but it proved that what was coming over the screen was a link to some memory component still alive and functioning in the ship, buried in some bank of instrumentation.

He touched some of the switches again and another page formed on the screen. He persisted in thinking of them as pages because they were margined and orderly and the slight fuzziness of the

image reminded him of the usual small distortion he got from a ferrite memory core whenever he dialed a library bank on Earth. This page was also familiar. It showed two circles overlapping and a line bisecting the chord of one. A caption ran down the side.

From this particular "page" had come a tentative decision to assign one of the caption squiggles the word "line." It was only possible to do that, of course, after considerable comparison with other pages. Terry called that particular switching sequence from the alien computer's memory because it was a handy check to be sure nothing had changed.

He ran quickly through a number of other punching sequences and stopped to admire the last. It was a magnificent shot of Earth as seen from somewhere further out from the sun. The Moon peeked around in a thin crescent and blue oceans threw flashes of reflecting sunlight. And yet the colors were wrong, the blue too deep and the white moon a curious shade of green. It was not made for human eyes.

"Trying new sequence. Alter 707B to 707C," he said. If the change was in some way fatal, if it fried him in his chair, at least Clavius would know which sequence to avoid next time.

He punched it and got lines of symbols. No help. The next was an array of dots. The next was the same, but a different array. As he watched the grouping changed slightly, rotating clockwise.

It was the first movement he had seen on the screen. Something connected with the Moon's rotation? He pointed it out to Clavius Center and they made a special note.

More dots, then more lines of squiggles. A drawing of a rectangle, no caption. Dots. Then a picture of a machined tool,

with caption. He thumbed instructions to log this one with the computers on Earth, for comparison with previous finds. Might discover a new word that way.

Next sequence: same tool, different view. Next, more dots. Then—Terry jerked back.

Something like a large rat with scales peered out at him. It stood on sand, erect on hind legs. Forepaws held something, perhaps food, in long nails. It did not look friendly.

But no squiggles accompanied it. For translation purposes it was useless.

"Clavius calling," his speaker sounded. "We're getting heating in some of the relays on the third level. Have to shut you down for a while." The screen faded.

Terry sighed. He'd been here a week and already the interruptions were expected. Extremely careful precautions were taken to prevent any damage; they were the first archeologists to work in high vacuum and they didn't want to make mistakes.

He settled his helmet into place, catching his red beard. Ought to cut that. It was fashionable in Odenra, his mother country, but inefficient here. He'd grown it a few years back, just out of graduate school, and had it dyed red for the shock value—against his ebony skin it was as brazen as an advertisement.

Strange association. An advertisement was precisely what he *didn't* need. As an accomplished linguistic analyst he was a respected professional. But as a native of the most powerful black nationalist government in Africa he was in demand. All UN technical programs tried for even representation of racial groups, so an educated black was needed. It was something like the situation that existed in the United States when it

underwent integration—when integration became the index of virtue, giant corporations scrambled for qualified blacks to hire.

Not that Terry cared. Good physical conditioning and the right specialty had singled him out for this job, and he meant to keep it. It was driving him up the wall with fatigue and unanswered questions, but he loved it.

He walked the hundred yards to the living domes and laboratories and cycled through to the cafeteria. He selected a few small tins of preheated rations and sat down.

"Shut down again, then?" It was Pasquan, the Mexican, Terry's immediate boss. He and Banchos, the Brazilian, sat down next to the black man.

When Terry nodded Banchos leaned forward and asked, "Do you know where it came from yet?"

"No," he said. Some of his irritation was in the reply. "Anybody knows you can't unravel a language in a week."

"It's a sign, though, a clear sign," Pasquan said.

"Of what?" Terry said.

"The Second Coming. This craft was not placed here by accident," Banchos said significantly.

"It wasn't placed here at all," Terry said. "It crashed."

Pasquan looked at him narrowly. "The New Sons have a better understanding of this, Wilk. I am only sorry you have not found it within yourself to open your eyes and see the truth."

"What truth?"

"Our First Bishop spoke today about it," Banchos said. "This craft was the carrier of the Antichrist, diverted from Earth by God in the great struggle of 1000 A.D. Man was saved then and allotted another thousand years to seek

the fullness of God."

"It is a cursed vessel," Pasqual said softly. "Anyone who remains within it runs the risk of occupation by devils. It is a sin to work in there."

"Look," said Terry, clenching his fists together over his plate and speaking slowly, "I know the New Sons of God are big stuff back in North America. I know the year 2000 is eleven months away. If you whites want to pull your hair and go crazy about it, fine. But leave me out. I don't believe any of this ugly business about demons and the dead rising. Christ isn't coming back. Your Bishop is a fake. How a gang of lunatics like you ever got assigned to this project I can't understand. But leave me out of your fantasies, okay?"

He jerked to his feet and walked away, fuming. The two New Sons scowled at his retreating back and began to talk softly.

III

Alexander Livingstone sat up with his patient most of the night. He carefully went through the contents of King's back pack, hoping to find some record of where the man had come from.

Aside from the gray metal tube, which had no obvious function, the rest of the pack's contents were quite ordinary. A supply of dehydrated food, change of clothing, simple tools. At the very bottom of the pack were several rolls of microfilm and a compact viewer.

King was still unconscious, his breathing regular. The wound had stopped seeping. Through the thickening chill of the long night Livingstone ran the microfilms through his own large wall viewer, feeling a slight embarrassment, as though reading another man's mail.

Raymond King was a rich man. His credit cards, passes, serial biography, all attested to that. He had made his fortune early in land speculation and retired. And for the last ten years he had pursued a strange hobby: trapping the unusual, finding the elusive.

He used his money to search for sea monsters, discover lost Inca trails, uncover Mayan cities. Livingstone could piece all this together with the films of newspaper clippings. Evidently King carried a portable library about himself around. Reasonable; it probably helped him with uncooperative officials.

The next microfilm was a series of clippings and notes. Livingstone studied them and pieced together a history.

The Salish Indians called it Sasquatch in their legends. A report of the Hudson's Bay Company in 1864 gave evidence of hundreds of sightings. The loggers and trappers who moved into the Pacific Northwest knew it mainly by its tracks and thus it gained a new name: Bigfoot.

It was seen throughout the northwoods of the United States and Canada. In the nineteenth century over a dozen murders were attributed to it, most of them involving armed hunters. In 1890 two guards posted to watch a mining camp on the Oregon-California border were found dead. They had been crushed, slammed to the ground.

All this simmered beneath the surface until in 1967 an amateur investigator obtained color motion pictures of a Bigfoot at a range less than fifty yards.

It was huge. It stood seven feet and walked erect, moving smoothly but not hurriedly away from the camera. It turned once, to look back at the photographer, and revealed two large breasts. A thick black fur covered it everywhere but near

the cleft of bone that surrounded the eyes.

Scientific opinion was divided on the authenticity of the film, but a few anthropologists and biologists ventured theories.

The Pacific Northwest was relatively sparsely settled. The thick forests that cloaked the rough western slope of the Rockies could hide a hundred armies. Bacteria and scavengers on the forest floor quickly destroy bones or even artifacts left behind; the remains of logging projects do not last more than a decade.

If Bigfoot did not build homes or large tools, he could escape detection.

A large, shy anthropoid could hide there and escape capture. Particularly if that was what evolution taught him to do. Most animals survive by running, not fighting.

How did Bigfoot get there?

A land bridge stretched across the chill waters between Alaska and Siberia several times in the last million years, and between the ice ages men could cross. That much is certain.

What was he?

An early form, somewhere between the apes and Neanderthal, a relative of Peking or Java man. As later forms evolved, the Bigfoot would be pushed into other climes. When they found the New World and men followed, eventually they would come into conflict for the best land. The men, being armed and presumably smarter, could have driven the Bigfoot back into the forests. Perhaps the Sasquatch legend came from those encounters.

But scientific expeditions in the 1960's and 1970's failed to get solid evidence of Bigfoot's existence—that is, a body—and the matter gradually lost its believers. Population pressure opened cities in northern California and Washington

until one by one the areas where Bigfoot had been sighted shrank away.

The end of the last microfilm roll was an extensive map of southern Oregon, around Drews Reservoir. It was covered with small arrows and signs in pencil, detailing an erratic path northward.

Alexander Livingstone followed the path until it abruptly stopped about ten miles from his cabin. It ended in a completely wild stretch of country, hilly and thick with pines, one of the most isolated spots still remaining in the United States.

Livingstone had picked it that way. Irene had died in September and a month later he'd found the cabin listed for sale and moved up here immediately, glad to be free of the sprawl of the city. He was a good mechanic and still kept up with the new tricks and devices coming on the market. But his touch was losing some of its sureness, the ability to improvise getting a little slack. For a man of sixty-three he was doing well; most retired before fifty now.

But Livingstone had to find new directions, a new basis for living. When you've lived with a woman for over thirty years her absence is like losing a leg; you can't be the same man any more. He had come up here to find a place for himself in the world of 1999. Take a breather and look it all over.

If possible, find a way to continue with dignity. Avoid the mobs, particularly the religious insanity that seemed to be sweeping everyone these days. Search out a harbor for an aging man.

He looked up from the wall viewer. Something thumped against the wall of the cabin, as if brushing by.

He reached the window in time to see a shadow fade into the deeper blacks of the trees. Or was it his imagination?

It was late, easy to be mistaken. .

Then he remembered the print outside the window earlier. It was huge and deep, with five toes. And the name of the *something* King was hunting had been Bigfoot.

IV

The worst of it was that if he complained about the browbeating Pasqual and Banchos were giving him, the administration at Clavius Center would have to look upon it as religious prejudice on *his* part. The New Sons were a powerful new voice on Earth; their riots could bring down a government in a week. It was smart to stay on their good side.

But it was more than browbeating Pasqual was giving him; today Terry received notice that an evaluation was being made of his work. He was sure Pasqual was behind it.

Terry shook himself out of his day-dream and thumbed in a new sequence. He was spending night and day at the console, piecing together a crude code to understand the alien's language.

The alien computer banks were like a giant garbled Rosetta Stone. Their words were there, with occasional pictures for illustration. Problem: find the connection between the picture and the words. He'd run through thousands of sequences now and a small "dictionary" was being written by the main computers at Clavius and on Earth.

Terry examined the lines of rippling notation that formed on the screen. He pressed a new relay on his console and gave the computers at Clavius a look at it while simultaneously requesting a preliminary translation.

PARTIAL DECODE AS FOLLOWS:

FILE 4BI485 RE: NATIVE XXXXX
RECOMMEND LOCAL CONTROL
MOST FAVORABLE XXXXX IF XXX
PROCEDURE FOLLOWS SCRAMBLE
OLDER PEACOCK PEACOCK GE-
NETIC BASE XXX TRANSIT STONE
ALLE XXXX. : : DIFFICULTIES BE-
YOND THIS POINT.

He studied the result. Obviously PEA-
COCK PEACOCK was an identification
error. The whole thing looked like a
short administrative message.

He continued on with a few more,
each making a certain amount of sense
by itself but seemingly unconnected to
the others.

The encoding process of the alien
computer was still a mystery. The other
technical sections that were burrowing
slowly into the ship weren't giving him
any help yet; they couldn't say what the
complex symbols scattered through the
wrecked corridors might mean. It wasn't
even clear that binary arithmetic was
being used.

The gigantic rat he'd seen some days
ago—was *that* one of the aliens? Or a
specimen they'd found? Perhaps a native
of Earth?

The next sequence was vaguely famil-
lar: clusters of dots which connected in a
three-dimensional lattice with similar
clusters. Terry thought vaguely of benzene
rings he'd once studied. Chemistry? He
punched instructions for the Clavius com-
puter to do a search coding on it, trying
to match with molecular chain models.

Dots, more convoluted arrays, long
lines of symbols. Terry was beginning to
despair of ever finding an association
between the sequences he selected and
the images he got.

Intuition told him the later entries in
a sequence had to be more specialized. In
ordinary Arabic notation it would be

stupid to label similar material with wildly varying numbers, like 55, 104 and 333. Better to simply list them as 55, 56 and 57. It was a fundamental property of positional notation.

But suppose some of the switches weren't catalog numbers for information retrieval, but command modes. The third metal lever from his right hand had two positions. Did it mean "off" or "on"? "File this data" or "destroy it"?

He began to tire.

And then sat bolt upright. Something in a slick, rubbery space suit stood against a backdrop of low ferns. Its helmet was opaqued partially and only an outline of a head could be seen. Something told Terry it was Earth. The pattern of the fronds was primitive but somehow familiar.

The figure in the suit was humanoid, but that was not what attracted his attention. There was another one, taller and obviously not wearing a suit. It was covered with thick dark fur and stood in the ferns, turned away from the camera. It held a large stick in massive, stubby hands.

Terry looked at it a long time. The suited figure didn't bother him, though it might be an alien—the suit had a strange look about it. But the tall one, heavy and threatening, was different.

Try as he might, he couldn't shake the feeling that it was a pre-human.

V

Raymond King awoke in the cold gray light of dawn. He babbled at first and Livingstone fed him broth heavy with the warm tang of brandy. It seemed to give him energy.

He talked, rambling through words at random without making sense. After a

few minutes he suddenly blinked and focused on Livingstone's weathered brown face for the first time.

"I had 'em, you see?" he said, exploring. "They were *that* close. I could have touched them, almost. Too quiet, even with that singing they were doing. Couldn't run the camera. Makes a clicking sound."

"Fine," Livingstone said. "Don't roll onto your side."

"Yeah, that," King murmured, looking down at his shirt, with a fixed stare. "The big one did that. Bastard. Thought he'd never drop. Kept pumpin' the slugs in him and that stick was goin' off in all directions. Orange. Lit up everyth..."

His voice trailed off. The painkillers in the broth were taking effect. In a moment King breathed easily.

Livingstone walked to the window and looked out on a white blanket that dulled the usually sharp line of horizon on the opposite hill. Flakes fell in the soft silence, stirred by the breeze.

It was at least three feet deep now. Impossible to reach the road.

But perhaps it wasn't necessary. The worst was probably over. If infection didn't set in—with all the antibiotics he had, it wasn't likely—King could recover without professional care.

He wondered what all the babble had meant. "The big one" might be anybody. Something had made the wound, for certain, but Livingstone knew no weapon that might. It was too large to be a laser burn.

And then there were the shadows he'd seen. The print, too. He didn't know what it meant. But there was something outside the cabin.

A man? Not likely, in this weather. Perhaps it had gone away in the night.

Livingstone shook his head to clear

it, brown curls falling into his eyes. Have to cut his hair soon. You forget things like that, living away from people.

He checked the lock on the door and laid down on a sleeping bag. King was out for hours. Whatever had been or still was outside could wait. He was in no condition to deal with it now.

He closed his eyes and was asleep in seconds.

VI

He had it. Terrance Wilk paged through the sheets on his small desk, tracing the patterns he had painstakingly constructed. It was a diagram of the alien grammar and a partial dictionary.

Their words were built on a very simple pattern; deceptively easy forms for tense and gender; syllabic breakdown regular; same concepts of subject, predicate and other functions as most Earth languages.

He'd put it together with the computers, intuition, a reservoir of experience, and luck.

And the best part of it was that he was the only one with all pieces to the puzzle. Clavius had most of the computer log. Dr. Klimontovich on Earth knew some of Terry's ideas—he was the backup expert and studied the notes Terry sent down after every session inside the ship. Various people on the site knew bits and pieces.

But no one had put them together yet, except Terry.

There was a knock at the door.

"Come in."

Pasqual squeezed his heavy frame through the narrow doorway. "I want to hear how you're doing," he said. He sat down in the only other chair and leaned against the wall that held the foldup bed.

"Reasonably well," Terry said, keeping his voice noncommittal. "I've made progress in breaking down the morphological construct into something we can understand."

"Uh huh," Pasqual said. "Think you're going to be able to read anything that's in there before long?"

Terry stalled for time by stacking his notes. They made neat clicks in the insulated silence. He didn't want to tell Pasqual anything important. The New Sons might jump on anything he found—who knew what a fanatic would think important? And some of the things he'd found were going to stand science on its ear, if they panned out.

On the other hand, Pasqual hadn't gotten here by ability. He was a political appointee, given a slot because the New Sons were a powerful pressure group.

If he had that much pull, he could use it against Terry, given the slightest pretext. If Terry seemed a little slow at getting results, there were always others who could fill the job—others more pliable to the interests of the New Sons, others who weren't black, didn't come from an openly atheist African republic.

Terry decided to throw Pasqual some tidbits.

"I don't need a total translation. Look at this." He tossed a print on the desk. Pasqual leaned across and studied it. Terry wrinkled his nose; the man smelled of the incense the New Sons now used in their services.

He looked up. "Satellite shot of South America. So what?"

"Look closer. It's the southern tip, Tierra Del Fuego." Terry tapped a fingernail on the slick surface. "This is the Estrecho de Magallanes, a narrow strait that connects the Atlantic and Pacific."

"That's no strait. It's sealed up at

three or four places."

"Right. Now look at this." He snapped down another print of the same area, dealing as though he were playing cards. "I got this by request from Geodesic Survey. Taken last year."

"It's open," Pasqual said, frowning.

"It's always been clear, ever since Europeans reached the New World. That first shot is how it looked before erosion cleared the strait."

Pasqual seemed reluctant to draw the conclusion.

"It's old," Terry said. "Ancient. And there are hundreds, thousands more I've seen. Klimontovich back on Earth is getting some people to date them."

"The aliens were cataloging the Earth, then. I'm sure they didn't land, however."

"Why?"

"The new Revelation," he said simply. "'The Earth knew not the spark of Mind until Man walked upon it.'"

"Some of the prints show earthworks. There's one shot of a landing grid that must've been taken by a ship not more than a mile up. But that needn't bother you. It happened after Man came along."

Pasqual scowled. "That is impossible. There are no passages in the new Revelation . . ."

"But *there are* these." Terry spread out three more prints, each with a shot of the tall furry creatures he'd first seen with the suited alien. Pasqual studied them for a long moment. When he spoke it was with surprising softness.

"Wilk, you must not report this. I'll admit, they have human form. Perhaps some kind of ape. But they cannot be men. The Revelation must not be contradicted in this matter now. This material could mislead a few who know no better."

"Crap."

"But your conclusion is preliminary," Pasqual said evenly. Terry suddenly saw that the man thought he was being reasonable. "Spreading such an untruth as this could cause some to lose the faith. Even a sinner like you can—"

Pasqual stopped suddenly and stared at him. Terry wondered what madness could be going on behind Pasqual's eyes.

The man suddenly stood up and turned to go. "What follows is on your conscience," he said, and left.

Terry sat thinking. Obviously, Pasqual considered persuasion hopeless. He was going to try to stop Terry's conclusions from ever getting into circulation.

And if he reacted that way to the prints, what would he think of this?

Terry put the photograph of a three-dimensional lattice with clusters of dots on the top of his notes. An hour earlier he'd gotten the probable identification from the Clavius Center computer. Molecular chain models can have only so many representations; based on some simpler readouts from the alien computer, the computer had found the answer.

Physostigmine.

The complex organic chain molecule that was the root of sleep learning, that stimulated man's synaptic responses in the sub-cortical region, that enabled him to soak up information, data, concepts without effort. It opened the mind.

And closed it as well. Misused, it turned a man into a fanatic, a lunatic utterly under the control of whoever had the drug.

In the last hour Terry had poured over the prints he had, placing the physostigmine in order with the rest of the computer readout. He was reasonably sure, now, of what he was reading.

It was an indoctrination manual. Not all of it—just the segment called out of the computer's core by the right sequence. It was simply another part of the file.

It was a record of a sophisticated chemical and genetic treatment that would make the natives—the tall, black furred anthropoids—believe something.

Terry worked through the night, forgetting Pasqual and the New Sons. With the records he had it was possible to decode most of the administrative messages he'd found.

There were words in them he could not assign a clear definition. He scratched his red beard and pondered. Belief? Faith? Right knowledge? For a moment it almost seemed as though he were talking to Pasqual again.

Gradually, with mounting fear, he began to understand.

VII

In the afternoon Raymond King could talk. Livingstone fried synthetic yeast steak and as they ate King confirmed most of the deductions he'd made from the microfilm.

"I'd been on their trail for months," King said, propped up in bed. "Got a few long distance photos, even found some of the vegetation they'd nibbled at, a few rabbit bones, things like that. Followed them up out of California, with two guides to help me. Started in August. In December it got too cold for them, gettin' a little scared too I bet, and they dropped out. I kept on, had a copter drop me supplies."

"Why not stop?" Livingstone asked. He looked down at the map he held in calloused hands. The trail wound back on itself several times, various points

marked with dates.

"They had to slow down sometime. Everything does in the winter up here. If I outlasted them I could maybe move in when they were hibernating or something, have a look at their caves."

"Is that how you got this?" Livingstone gestured at the bandage over King's ribs.

King grimaced. "Yeah, I guess. Maybe they weren't holed up at all, just stopped for a while. I came up on them in one of those circular clearings that used to be a root system for redwood trees. Got in close. They were sitting around a kind of stone block with something made out of metal on top of it, all of them kind of looking at it and humming, swaying back and forth, a few beating on the ground."

"You mentioned that earlier when you woke up."

"Uh huh. I thought the sound would cover me, all that chanting. They were worshiping that damn thing, that rod. I got a picture and moved and the one up front, the one who was leading them, he saw me. I got scared. Took a shot at him with my rifle, thinking to run them off maybe."

"Then the leader grabbed that rod and pointed it at me. I thought maybe it was a club, so I got off another shot and I think I hit him. Then he did something to the end of the rod and a beam came out, so close I could feel the heat in the air. Something like a laser, but a lot wider beam width. I was pumping slugs into him like crazy, but he wouldn't go down. Next time he fired he clipped me in the side. But I'd got him by then, he was finished."

"The others had run off. I got over to him and pulled that rod away from him and took off, not even looking where I

was going. I guess they picked up my trail a little later—I saw some of them following me. But they'd learned a lesson and stayed away, out of easy rifle range. Guess they thought I'd drop finally and they'd get their rod back. Until I saw your smoke I thought I was finished."

"You nearly were. That burn cut deep. Could've caused infection. I'm surprised you could stand the pain."

King winced, remembering it. "Yeah. Had to keep going, wading through the snow. Knew they'd get me if I stopped, passed out. But it was worth it."

"Why? What did it get you?"

"Well, the rod," King said, startled. "Didn't you find it in my pack?"

Livingstone suddenly remembered the gray metal tube he had examined and put aside.

"Where is it?" King sat up and twisted out of the bed, looking around the cabin. Livingstone walked over to the man's pack and found the tube lying under it in a corner. He must've dropped it there when he first saw the Bigfoot at the window.

"Ah, okay," King said weakly, dropping back onto the pillow. "Just don't touch any of those things on the end. It goes off real easy."

Livingstone handled it gingerly. He couldn't understand its design. If it was a weapon, there was no butt to absorb recoil or crook into a man's shoulder. No trigger guard. (No trigger?) A slight raised ridge on one side he hadn't noticed before. A sight?

"What is it?"

"Don't ask me," King replied. "Some new Army gadget. Pretty effective. Don't know how they got it."

"You said the Bigfeet were . . . *worshipping* it?"

"Yeah. Gathered around, some kind of ceremony going on. Looked like a bunch of New Sons or something, wailing away." He glanced quickly at Livingstone. "Oh, sorry if I offended you. I'm not one of the Brothers, but I respect 'em."

Livingstone waved it away. "No, I'm not one of them. But this weapon . . ."

"It's the Army's, for sure. Who else has got heavy stuff like that? I had to get certificates as long as my arm to carry around that rifle I had. I'll turn it in when I get back, don't worry about that. Only thing I care about is the photographs."

Livingstone put the tube on the kitchen sideboard, frowning. "Photographs?"

"The ones I got of them. Must have three rolls, a lot done with telescopic lenses. They'll prove the Bigfeet are still up here, get me some press coverage."

"I see. You think that'll do it?"

"Sure. This is my biggest find, easy. It's even better than I thought it would turn out. The Bigfeet are smart, a lot faster than some game animal. Might not be the missing link or anything, but they're close. Damned close." His voice was fading with fatigue, a sibilant whisper.

"I think you should sleep."

"Yeah, sure . . . sure. Just take care of that film in the pack. Don't let anything . . ."

In a few minutes he began to breathe regularly.

Livingstone found the film in a side pocket of the pack that he had missed before. They were clear, well-focused shots on self-developing film. The last one, of the clearing, was still in the camera. From behind the Bigfeet were just dark mounds, but the tube could be seen clearly resting on a rectangular

stone at the far end of the clearing.

Livingstone moved to the window and stood looking out at the waning light of afternoon.

It was hard to imagine how the Bigfeet could get such a weapon. They were primitive, afraid of men, isolated in a wild forest.

But they had it, undeniably. Lasers had been around for over thirty years. Possibly the military could keep something like this under wraps for decades, if they wanted to. There were a lot of devices that never reached the civilian market.

The Bigfeet seemed to know how to use it, too. But worshipping it? That didn't seem to fit their pattern.

Use of that gray tube would certainly keep them free of men. Perhaps that's why the reports and sightings dropped off after 1970—the Bigfeet killed anybody who got too close.

Outside, nothing moved. The snow had stopped but until it compacted there wasn't any hope of getting King out to the jeep. Still, Livingstone could go for help himself, if the weather held.

He realized that he hadn't listened to a weather cast since King appeared. In wild country like this it was a necessity.

If the radio promised him a handful of clear hours tomorrow morning he could make it. It would be a slight risk, even then. But King wasn't a young man; he might have a relapse. Best to get help when he could.

Livingstone turned on the radio, setting the volume low to avoid disturbing King. Slowly he spun the dial, listening for the usual clipped tones of a news broadcast.

VIII

"You won't reconsider?" Banchos ask-

ed, raising his eyebrows at Terry.

"No. It's only a preliminary report, but I want it transmitted in its entirety to Control Central by way of Clavius Center. Now."

"Well . . ." Banchos eyed him speculatively. "As Communications Officer I cannot pass on the suitability of any specific matter for transmit, but even so I—"

"Why all this?" a voice came from behind Terry. He turned. Pasquan was closing the door of Banchos' office. "You know anything you care to report in relation to your work has to be routed through me, Wilk."

"Yes, I know that," Terry said with an edge on his voice. "But this is just a preliminary statement. A few tentative conclusions. I'll submit a full summary later, with documentation."

Pasquan leaned on the edge of Banchos' desk and folded his arms. "I still don't see why . . ." he began smoothly.

"I just want a few people back on Earth to look over my notes, see if there's anything obviously wrong."

"Don't you think that can be done by the staff right here on the Moon?" Banchos said.

Terry turned back to Banchos. He should've guessed that Banchos would warn Panquan the second he saw Terry's name on a request for direct transmission to Earth. "There aren't enough qualified people here," Terry said. "The spectrum of opinion—"

"Too many New Sons, isn't that what you mean?" said Pasquan suddenly.

"Alright. Look. I'm sorry I said those things about the Second Coming. Your religion is your business. It has nothing to do with this."

Banchos suppressed a dry laugh. "Another lie. The Revelation has everything

to do with your—your *theory*. Every statement you've made is a rebuke, a threat to the Word. Look at this," he tossed a sheaf of papers across to Pasquan.

Pasquan studied them for a moment and looked up at Wilk. "I've seen a lot of this before. What more have you put in?"

"A few well-based conjectures. There's a lot of evidence for them, but I wanted a few other opinions."

"What's all this drug business, and the genetic traces?"

Terry sighed. It was finished now, he felt it. "There's not much that's new in that. I've discovered the aliens knew about the physostigminian derivatives—the components of most of our sleep learning treatments use. Most of the derivatives are outlawed. Too dangerous. They can make a man believe anything." He looked wryly at Banchos. "Or almost anything."

"But even if one man can be turned into a robot, his children aren't affected. It takes genetic change to do that."

"An illegal process as well," Pasquan said.

"Yes, it is now. But it's still crude, hard to control. We're just learning how to take traces of the DNA complex and perform a few alterations. But those aliens—" he gestured at a wall toward the wreck—"they had us down pat. They knew how to push our buttons."

"For what?" Pasquan said darkly.

"For their own advantage. Add it up. Those big humanoid things I showed you, standing next to the figures in suits. They weren't quite men—proto-men, maybe, one of our ancestors. Half-intelligent, perhaps. But men, basically, in genetic structure.

"The aliens used physostiminian derivatives and genetic alteration on them

to force willing obedience. A cooperative worker is a lot more efficient than a slave. As far as I can tell, the aliens had just about finished the indoctrination when an emergency came up and they had to leave, withdraw, abandon Earth. So they left the natives with a huge bias, right down to the genes. We've still got it."

"Got what?" Pasquan said, abruptly standing up. He clenched his fists.

Terry was abruptly sorry he'd apologized to them. It hadn't done any good and it still rankled him.

"Religion," he said. "The aliens made those proto-men believe they were gods."

"Impossible," Pasquan said.

"No, quite reasonable. The proto-men weren't the only Earth forms that got the treatment, either. The aliens extended the principle even further. They took a lower form and made *it* loyal to the proto-men. They speeded up the process of domestication, so the proto-men would have helpers themselves."

"What?" Banchos said. "There's nothing like that—"

"Dogs. At least, that's what the pictures look like. Something that resembled a cat was used, too; I suppose the process didn't take as well with them."

"Wilk," Pasquan said, "this is—"

"Hard, eh? Difficult to believe all those noble impulses that move the New Sons are hangovers from a little diddling we got a million years ago?"

Banchos stood up. "This is filth, untruth. You're trying to spread doubt in God's word with this . . . this *theory*, Wilk."

"Theory? Ya, an idea, a theory. You fellows don't like that sort of thing, do you? Afraid a few ideas might pollute your pristine minds. So the New Sons plant watchdogs in Communications

Section"—he glanced at Banchos—"and overseers who wouldn't be qualified to boss a ditch digger.

"Having a tough time with it? Can't decide what to do about me? Whatever it is, it won't work. You can't stop this, not now."

"I've had enough of you, Wilk," Pasquan said. "Get back—"

"No, no, Pasquan," Terry wagged a finger at him, feeling light headed. "You don't push me around. Nobody does. Certainly no softheaded New Son."

Banchos came around the desk. "You foul black—" He raised a fist. Terry dropped back and started to block.

"Stop!" Pasquan said. Banchos froze, relaxed and looked over at Pasquan. "No need for that."

"This atheist is—"

"I know. But no fighting. We don't want to draw attention to him." Pasquan gazed coldly at Terry. "And for you, Wilk, I would recommend consideration for others' views. You must not let your opinion of the Faith mislead you into trying to destroy it with a few bits of evidence."

"That's the point," Terry said evenly. "I'm not trying to pull down anything. I'm just adding up the things I've translated. Scientific. Objective. You have no right to impede it."

"No right!" Banchos said bitterly.

"I'm sure Mr. Banchos will consider it," Pasquan said formally. "Meanwhile, I'd suggest you continue your work."

Terry looked at each of them for a long moment, breathing deeply, an acid taste in his mouth.

"Okay," he said at last. "But stay out of my way." He turned and left, slamming the door after him.

In a few minutes he was padding swiftly across the lunar crust toward the

crushed dome of the wreck. It was an international holiday and most of the men working around the wreck were inside the living quarters or off to Clavius Center for some amusement.

But Terry couldn't sit and think. The clash with Banchos and Pasquan had tensed his muscles and soured his disposition; work would clear his mind.

Not, of course, that he'd lost the argument. Hours before sending the material through Banchos, Terry had sent a more complete version to Klimontovitch on Earth, to get his opinion. And with a sudden apprehension, he had tacked on instructions that if the formal transcript was held up in transmission to Earth, Klimontovitch was to release it to the general press.

It was a bit of luck, having contacts in Clavius Center who would send the message on to Klimontovitch. Luck, and foresight. The New Sons were everywhere.

He reached the wreck and cycled in through the lock. Maintenance had taken weeks to find a spot for the lock, and then more weeks to cut carefully through the tough alien alloy. The pressurized volume inside was a thin cylinder perhaps fifty yards long, a jumble of unknown technology.

He sat down before the console and set up the link with Clavius Center. Relay contact was established quickly with the computers on Earth. Terry set out his notebooks. They contained the thousands of translations he had made, guesses at semantic connections, a wealth of detail.

He had been working almost an hour when the computer link failed. He thumbed over to reserve lines, but they were out as well.

A moment later, while he was check-

ing with Clavius Center, that link died. It simply cut off as the operator there was promising to verify the computer loss.

Terry juggled the switch a few times. It was gone. He would have to walk back to the living domes and find out what had happened.

He got up and walked toward the lock hatch, fitting on his helmet. The lights went out.

He stopped. Internal power must have failed in the wreck. There were several power sources spread among the corridors and levels; probably the one for this section had quit.

He turned on his suit torch and spun the manual wheel on the hatch. It went around freely, catching nothing. No metal teeth bit together to open the outer hatch.

Terry stood in the darkness and thought. When internal power cut out, recycling became impossible—the pumps needed current. But it should still be easy to open both hatchways and get out—the air in here would spurt out the open lock, probably blowing away a few small items, but causing no harm. Then he could exit and walk away.

But the lock wouldn't open manually. He was trapped.

Terry heard a slight tinkling sound through the hull. A thin noise of metal on metal, coming from the lock. Someone was out there.

"Mayday, Mayday," he called through his suit radio. He repeated it several times before he remembered that the signal wouldn't penetrate through the conducting walls of the wreck.

At any rate, there was no reply. Terry put his helmet against the lock and called out. In a moment the tinkling stopped and he heard a voice, mumbling, vague. Then clearer.

"You there, Wilk?"

"Get me out of here! The lock has failed."

"I'll have Maintenance look into it tomorrow. They're at Clavius today." The voice laughed.

A cold shock ran through him. *Pasquan*.

"Hear me, blackie?" Banchos' voice came through, high and thin. "Too bad no hymnal in there. Give you something to do, read the Word. Spend your last half hour improving your lot in the next life."

"Let me out of here."

His ears popped. With a reflex movement he sealed his helmet. The cabin pressure was dropping; he could feel his suit balloon out. Somehow they had punctured the air system. If it was merely a loss in this one part of the wreck it could go undetected outside for quite a while.

"Check your bottles."

Terry looked at the dials of his oxy-mix bottles as reflected in shoulder mirrors. One was low, the other empty.

He thought carefully. He had left them nearly full yesterday and not bothered to check them when he came out today. Too angry, distracted. Stupid.

"Look, let me out and I'll forget about this. Call it even."

"Ha."

"You can have the material I've worked on. I won't publish my results."

"Move," *Pasquan* said. "Bye bye, Blackie," Banchos called.

Silence.

In his mind's eye Terry could see the two men sauntering casually back to the pressure dome. They had probably signed out to do some checking in another part of the ship and then cut his power and communications links. He didn't know how the manual lock could be fouled, but with most of its mechan-

ism mounted on the outside it shouldn't be hard. No device can be made so fool-proof a man can't override it.

He glanced at his pressure dials. The level had already declined measurably. He tried to think coolly and estimate probabilities. Not many men on the wreck today, because of the holiday. Clavius would report power loss, but they'd probably start checking from the Earth end first.

How long to verify Earth was having no trouble? A few minutes. Then make a call to the project HQ in the domes. Control there would probably assume it was a routine power foulup and send word to Maintenance. When would they get around to it? An hour? On a slack day that much time wasn't unusual.

His bottles had perhaps half an hour of air. Forty minutes, stretching the point. He couldn't count on rescue.

What did he have to work with? No power. No tools.

He turned back to the console. It still showed the last pattern he'd called. Apparently the lines Pasquan and Banchos cut were just the internal illumination and direct links to the outside. They hadn't severed his connection to the alien computer.

But what use was that? All the information in the universe wouldn't get him out of this coffin. It was sealed at each end and impossible to penetrate without cutters.

He sat down at the console and flipped open his notebook. It was no use following the sequences he already knew. They led into some kind of operations report; fascinating for research, but no help to him now.

He started at random, translating from memory and the notebook. SHDRUCK-QWERT. Image of swirling lights. Star

graphs, orientation unknown. ASTRAL PROFK UNSUMMED IN TANGENT.

He went through sequences automatically, discarding most of what he saw. Behind the fever of activity he wondered what he could possibly find, why this was happening.

He knew the New Sons had no objection to ritual murder. But this wasn't ritual; it was a cold scheme to silence him. Did they believe they could make this look like an accident? Too many things had failed at once. They couldn't get away with it.

But with enough New Sons in the investigating party, perhaps they might.

Fifteen minutes had passed. ORBITAL CORRELATIONS OBSERVED 263490 ABSQUINTH OVERR. Terry tried to control his breathing, calm himself. He was getting nowhere.

TWENN FWN MANG SECTION INVENTORY 46459 CONCERNING SUBCLASS 37495. He paused. The next few sequences were dark green photos of the ship's interior with a kind of numerical overlay that pulsed into the visible every two seconds.

Next: tables of numbers keyed to descriptions like CANISTER BLOCKING FHRUTP. He went through a dozen of them rapidly, the only sound a sharp click as the switches lodged.

At last he reached something recognizable. A section of corridor he'd seen on another level. The serial numbers flickered, labeling the objects in the photograph.

Twenty-five minutes. Should he write a note, accusing Pasquan and Banchos? No. That was giving up.

His breath rasped. Oil taste in the air. Whir of suit circulation unit. CALCULATION MONITOR 364495. 4X LOG COUNT. Click.

Suddenly it was there. THEMATIC SCANNER LASTN PHASE RUTOVL. The photo showed the console, the surrounding banks of electronics and cabinets, the chair he was sitting in now.

Next more tables. INSERT MULTIPLIER, CONDITIONAL 47559. FOR-TEXTN VERIFYING LOCK 3484.

SMARLEN ARMS LOCK 47449.

Terry switched back to the photo. There was no 47449. He clicked forward five sequences, got another photo. Further down the corridor.

He turned his head to compare. The objects in the photo matched a seamed section of the deck just on the edge of the area his suit torch could reach. 47449 was a slotted hole in the bulkhead.

He threaded his way down the corridor, still careful to avoid contact with the alien equipment. The slot ran four feet along the wall at chest height. Labeled buttons were sunk into the metal at one end. He pressed one.

The slot dilated and a small round ball fell out. Terry turned it over in his hands, could find no break in the skin. He put it down, pressed the buttons again.

Something like an office stapler appeared. He held it carefully, found a small hole in one side and pointed it away from himself. A lever on top moved freely. He held the lever down and in a moment began to feel a hum through his boots.

He held it for a full minute and the hum stayed steady, but nothing else happened. He put it on the deck.

Another series of buttons. Nothing came. Another.

Terry caught the gray metal tube as it began to fall in the Moon's gravity. There were buttons in the thicker end. A milky white tip capped the thin end

and Terry guessed automatically that it was some form of muzzle.

His breath caught. Thirty-five minutes. His lungs were pumping quickly now, driven by the excess of carbon dioxide in the sour air.

He pointed the tube down the corridor and fumbled with the buttons.

A gout of light burst from the tip and boiled down the corridor, soundless. It faded into random balls of iridescence that splattered on the bulkheads and in a moment was gone. Where it had struck the metal puckered and flowed for an instant, then cooled.

Terry staggered back toward the console carrying the tube until he reached a clear section of the level. There was enough room to cut a hole a man could wiggle through.

He braced himself, took careful aim. Fired.

IX

Alexander Livingstone turned the weapon over in his rough hands. Did he really feel the foreignness in it, or was that imagination?

It was alien, the radio news broadcast had made that clear. Some Russian had released the information about the findings in the wreck on the Moon, the 'cast said. Then the announcer came on with a bulletin. The New Sons had tried to kill the man who had decoded it all. He had escaped suffocation by cutting his way out of the wreck with a kind of laser rifle that sounded remarkably like the one in King's story.

The rest of it . . . well, it fitted. In a curious way it all came together.

Worship of objects, of idols, was one of the primitive forms of religion. The Bigfeet were taught—no, programmed—

to believe the aliens were gods. It would be a simple, natural thing for the Bigfeet to transfer their worship to the possessions that the gods left behind when they abandoned Earth.

In the distant past the Bigfeet must have collected the bits and pieces of their gods' leavings and carried them along when the higher forms of men drove them out of Africa and Asia. Dragged them across the Alaskan straits, perhaps used them to survive.

And the tribes with weapons would live longest, of course. A band of Bigfeet that worshipped an alien refrigerator wouldn't find it of much use when they had to fight.

King spoke in his sleep, mumbling, and thrashed against his bedding. Livingstone looked over at him.

King could make his name with this discovery. He had brought the Bigfoot at last into the light.

Livingstone found the film in King's pack. It burned brightly in the fire and in a moment there were no traces.

He carried the tube—how had they made it so tough, to last this long—out into the clearing and stood with it in the darkening chill of evening.

Minutes passed. Then they came.

There were not many. Six slowly stepped away from the shelter of the black tree line and formed a semicircle around him. Livingstone had the feeling more were waiting out of sight.

In the light thrown through the open cabin door behind him he could see one of them clearly. The head was very human. Flaring nostrils that slanted into a thick overhanging forehead. Glittering, sunken eyes that darted quickly, seeing everything.

Massive, muscled arms hung almost to its knees when it crunched forward

through the snow. A sheen of black hair, two inches long, covered the entire body except the nose, mouth and cheeks.

Human genitalia, and to the right Livingstone could see a female with heavy breasts. They stopped twenty yards from him and waited. There was dignity in their bearing.

He held the weapon out at arm's length and stepped forward. They didn't move. He placed it gently, slowly on the snow and stepped back.

Let them have it. Without hard, factual proof King's story would be dismissed.

The New Sons were not beaten. They would do anything to disprove the evidence in the Moon wreck. The Bigfeet were living refutation to the New Revelation. They would be hunted down, once King reached civilization with that tube.

The tube was the final argument. It linked the Bigfeet unquestionably with the aliens.

Livingstone gestured for them to pick it up.

Take it. You're just as alone as I am. Neither of us has any use for the madness of man.

One came forward hesitantly. He stooped and smoothly swept it into his arms, cradling the tube.

He looked at Livingstone with eyes that flashed in the orange cabin light and made a bobbing, nodding motion.

Behind the Bigfoot the others made a high chattering noise that rose and fell. They sang for a moment and made the motion again. Then they turned and padded gracefully away and in a moment were lost in the trees.

Livingstone looked up. Clouds were scudding across the stars. Between two of them he could see the white starkness of the Moon.

There was a man up there who had

(Continued on page 119)

Alexei Panshin introduced his world of the Ships with "Down to the Worlds of Men" in the July, 1963 If, and subsequently with "What Size Are Giants?" (Worlds of Tomorrow, May, 1965) and "The Sons of Prometheus" (Analog, Oct., 1966), but when the first story was incorporated into his novel, Rite of Passage (Ace, 1968), science fiction fans, readers and professionals alike suddenly sat up and took notice. Rite of Passage has been awarded the Nebula (by the Science Fiction Writers of America) as the Best S.F. Novel of 1968, and may well win the Hugo at the World S.F. Convention this Labor Day. Thus, it is with considerable pleasure that we present a new story of the Ships (and possibly the final one, as well), in which Panshin tells a quiet but convincing story of relative values, and how they may shift . . .

A SENSE OF DIRECTION ALEXEI PANSHIN

Arpad woke quietly in the night. Without moving, he looked around: the fire was low, a lapping yellow and red in a sheltering half-circle of rocks; the wind was a cool transparent fingertouch; the circle of the ship to his left, one ramp lowered, was a blot against the sky. Around him, wrapped in the quiet of the night, were the others, sleeping. Standing guard were David Wiener and Danielle Youd. Arpad smiled to himself because he didn't like either of them. He had reason not to.

The camp, set up just hours ago to last for three nights, was in a valley of short grass, of rocks and hillocks, of water following a Sunday afternoon course. The hills that framed the valley were high and unfinished. They were covered with short grass, too, green turning to brown, and granite rocks.

Arpad was thirteen, a wiry dark-haired boy, competent, unhappy, and able to bide his time. He had waited quietly

for this moment for a long time until he was sure that it was no longer expected of him. He wondered what they would think when they found him gone and hoped things would be unpleasant for David and Danielle.

With a silent invisible hand he checked the knife at his belt. Then he leaned back and worked his arms inside the straps of the filled knapsack he had been using for a pillow. When he was done, he looked at the boy and girl standing guard. They were gazing into the dangerous might-be of the darkness as they walked their rounds, not at the circle of sleepers.

Four feet away from Arpad was a cut bank, a sharp slope. He breathed twice and then like a ghosting cat he was down it and on his hands and knees in grass that nodded and lied and said no one at all was there. In a moment no one was.

At a distance, in daylight, the valley

might have seemed all of a piece, even and undifferentiated, but it was far from even in actuality, particularly in the shadows of night. It held gullies invisible in daylight at thirty feet, rocks, scrub, grass, depressions—all of which could be used. Arpad had paid close attention to every word that bastard Churchward had said about the use of terrain through the past months, hated him because he was abused by him, and listened to what he said as gospel. During the hours of fading light when his attention was supposed to be on fixing and eating a meal, Arpad had tried to think as Churchward had recommended, as Churchward might if he had a free moment, and had picked the best line to the shelter of the river bank. He silently followed that line now.

Then, still on his hands and knees only ten feet short of the sloping bank, there was suddenly a looming shape in front of him. Arpad had a sudden sinking feeling. Before he moved he should have checked to see that Churchward was not off on a midnight prow, scouting the land by night so as to be all the more omniscient, as befitted his position, tomorrow. He would ask people things he'd already worked out the answers to and take delight in every lagging moment until the answer was produced: *"What's the matter, Mr. Margolin?"*—a sneering emphasis on the "mister" that was there for nobody else. *"Not so sharp today, are we? Come, come, now."*

But Churchward continued to move toward him and Arpad realized that flat against the ground he couldn't be seen. He didn't announce himself and he didn't wait to be stepped on. He simply grabbed his knife from its sheath and went for Churchward's throat. Churchward gave a gratifying grunt of surprise and followed his own advice. He threw

himself backwards, falling on his shoulders, and Arpad did as he had been taught and landed on top of him. There was a moment, exactly the sort of moment Churchward taught you to take advantage of, when Churchward lay helpless under the knife, but Arpad had never killed and even an eyelash blink of petal picking—should I? shouldn't I?—was too much. Churchward flipped him over his head and Arpad landed on his back halfway down the sharp little slope to the river. The knapsack was a hard cushion and Arpad's breath was popped out of him with an explosive little sound. He held onto the knife, however, and slid to the bottom of the slope and pushed himself to his feet. He turned to face Churchward.

Churchward looked down at him. "Ah," he said. "Mister Margolin—my favorite Mud-eater. You didn't learn your lessons very well."

Arpad wanted to say something about lacking an effective teacher, but as always he couldn't articulate his answer, as always he couldn't retort effectively, an incapacity that had made him the frequent grinning witness to his own humiliation. The grin was simply the face of frustration.

He managed to choke out, "You never saw me."

Churchward said, "You know perfectly well you could never pass me in the dark."

Tempted by the sound of that cutting, rubefacient voice, Arpad almost chanced a throw in the dark with the knife. But he couldn't quite do it.

"I'm leaving," he said. "Don't try to stop me."

"Not at all. It's an excellent idea. I said they should never have taken you aboard in the first place. This simplifies matters. I'll just say you . . . decamped."

I must say, I don't mind being proven right about you, you little beggar."

Arpad's teeth were set so hard against each other that a tooth chipped under the pressure, startling him. He spat the fragment out, then turned away. He could hear Churchward's laugh as he took a deep breath, and as he began to trot away along the side of the river he could hear the insulting sound of Churchward making water.

Nobody followed him. Nobody cared. But by the time he was out of sight of the fire glow around a curve of the first hill, the camp and the Ship didn't exist any longer for him. The hill erased all traces of them, and it was as though they and the last year had never been.

He felt at ease the next day as he walked through the ever-present grass that brushed at his bare legs. He had a good eye for country, a talent for finding easy terrain, a good steady walking pace, and a trustworthy sense of direction. Being free after so long helped to lift his spirits, but the country he walked through was an even greater delight. It reminded him of home.

The windhovers rode the currents lazily over his head like so many bird-shaped kites on leading strings. The hills were green fingers, fists, elbows and shoulders. They were hills, not mountains, but they were rugged and uncluttered by anything but green-brown short grass.

The Ship that had been his temporary living place this last year was nothing like this. His real home was, though, the planet on which he had been born and spent his first twelve years. There was no possibility of returning to New Albion—he could see no way to do it—but this planet seemed more satisfactory than he could have hoped and an infinite advance on the insupportable and

hated world of the Ship. Arpad had been told often enough that in time he and the Ship would grow used to each other, but that was no answer to Churchward and the many like him, and this green and pleasant land was an obvious and irrefutable answer.

From one point of view, Arpad Margolin was a beggar rejecting the society of kings, the kings in this case being the seven ships that two hundred years before had carried away over a hundred survival colonies from an over-populated Earth on the trembling edge of a final war, all in a mere sixteen years, leaving the colonists good wishes to help them survive and little more. Earth was now long reduced to black fragments and a cool blue memory. To those colonists who had survived, left with dirt, disease, hard physical labor and early death as their constant portion, the Ships were favored heirs using their inheritance of material wealth, scientific and technical knowledge, and infinite transport as the basis for a happy and carefree early retirement. Resentment, envy, hatred—the reaction varied from planet to planet depending on the contrast between the colonists' lot and what they were able to see of the life on the Ships. Whatever the reaction, it was never love.

The Ships held no love for the colonists, either. Generations removed from the original reasons for the differences between them and the "Mud-eaters", born and raised in what in fact were narrow little societies, all the Ships' populations could see now was the disparity of life-styles and conclude that it was an expression of the natural order of things. The attitude on their side was based on guilt at best, and at worst on arrogance and contempt.

Life was not as beautiful and simple on the Ships as most colonists believed,

and Arpad's presence here on Aurora was the direct product of one of the home fears of the Ships: the fear of the effects of concentrated inbreeding within a small society. As self-protection the Ships had adopted a puberty rite—they dropped every fourteen-year-old on a colony planet to survive for a month as best he or she could. They gave them training beforehand. If the youngsters were unable to profit by their training and survive, then they were small loss to their Ship. It was from his Survival Class, here on Aurora for three days under the eye of its instructor, young Mr. Churchward, that Arpad had taken French leave with not a single feeling of regret.

From the top of the hill Arpad looked down on the cluster of wattle-and-daub buildings, a far cry from the sturdy board buildings he remembered from home. The buildings, covered with thatched roofs, looked like so many broad-capped mushrooms squatting in the bare brown dirt. The lowering sun colored the village with a patina of dull red. A haze of smoke hung above the roofs in the evening cool and children raced in and out among the houses. Arpad paused on the hill crest, a thin boy in red shirt and brown shorts with a pack on his back, then made his way down along the well-beaten little path that took the easiest course to the bottom of the hill and the gathering of huts.

Halfway down he was seen by the children who piped and pointed, and then disappeared. By the time he reached the bottom activity in general had ceased, and there was a three man delegation walking toward him, two of the men carrying short-handled thrusting spears. The three walked in a fashion that gave them a precise, affected appearance to Arpad's eye. When they stepped, it was

on the balls of their feet, not the heel first. All three men wore knee-length pants and loose shirts, beards but not mustaches, and two of them were wearing flat-crowned hats. The one without a hat was also missing shoes, as though he had been busy relaxing after dinner and had only had time to grab up a spear and come out to greet company. They brought a variety of odors with them from the village—smoke, food and the gallimaufrous smell of people. When they were quite close enough for Arpad's taste, he stopped, but they kept coming until they were so close, almost looming over him, that he felt uncomfortable and frightened. It was only that he was so tired and hungry and that the men were not actually making threatening gestures that kept him from bolting.

The one without a spear, who was clearly the youngest of the three but who nonetheless seemed to be the leader, said, flatly and brusquely, "What do you want, boy?"

Arpad said, "My name is Arpad Margolin," and then stopped, taken aback by the sounds of shock that the spear-carriers made.

The one without a hat said, "Have you no sense of propriety? Mind your tongue!"

The leader cleared his throat and then asked flatly again, "What do you want?"

Arpad said, "Well, I've been on one of the Ships. They were keeping me, but I've left now and I'm . . . looking for somebody who will take me in." He gave them an anxious and pleading look because he was, after all, only a thirteen-year-old boy.

"One of the Great Ships?"

"Yes."

"And you left them?"

"Yes."

The three looked at him and then at

each other. Then the leader said, "Stay here," and beckoned to the other two. They moved off about ten feet and huddled together in conference. Arpad could only hear fragments of the conversation. Something about, "We know his name—aren't we committed?" and "He is wearing red. Maybe it would be lucky to at least listen."

At last they broke their huddle and turned to him again.

The leader nodded and said, "All right. We've decided to listen to you. We'll have the accounting in an hour. For now, go along with Bill here."

He pointed at the hatless, shoeless man, so Arpad, not quite sure what was going on, trailed along behind the man. He was a big, broad-nosed, broad-shouldered, splay-footed fellow and he walked on precisely placed toes through the village, then ducked his head at the door of one of the huts and went inside. Arpad looked left and right, and then followed him in.

Inside the hut was only a single room. There were effects in various corners and the general tone of the room was that it was a second cousin to a theater stage: that is, that it was a basically empty area that with the aid of props might be turned to any purpose. The only permanent features were a fire pit that had a pile of glowing coals in it and a larder hole. The floor was hard-packed dirt. A woman past her first youth was scraping food out of a black pot onto a large leaf, preparing to wrap it and place it in the larder. Lying on a mat in the corner to the right of the door was an old man, his very dirty bare feet sticking out of the cover. Arpad had never seen a room like this before and it reminded him not at all of home.

Almost automatically as he came inside, big Bill kicked the sole of the old

man's right foot. "Hold on with the food there," Bill said to the woman. "Are you hungry, boy?"

Arpad nodded. The woman got a bowl and shoved some of the suspicious mess from her pot onto it and handed it to Arpad with a smile that lit her face briefly and then was gone with an apologetic nod of her head almost as though she remembered herself. There was no eating implement. Bill brought out a long piece of bread, looked around for a knife and then started to tear off a hunk. Arpad drew his knife and handed it over, then took a cut of bread back in return.

Bill took a piece, too, and then with it stuffed in his mouth looked at the knife enviously, testing the balance. Speaking around the bread, he said, "Are all knives on the Ship of this quality? This is a fine knife." He handed it back.

Arpad started to eat. The food was strange in taste and stranger in texture, but he didn't find it hard to get down. The woman went out of the hut and balanced a pot on her head and Bill stepped outside after her. Arpad could hear them speaking to each other. Arpad continued to eat, and then had the insistent feeling he was being watched. He turned to see the small and overly bright eyes of the old man firmly, insistently fixed on him. The old man didn't look at all well.

He fluttered a hand weakly at Arpad. "Come here, boy."

Arpad moved over with his bowl in hand.

"Don't be so stand-offish," the old man said.

Arpad skinned closer, but even this wasn't close enough for the weak old man. In order to bathe Arpad in his sour old breath, he heaved himself half off his mat of woven grass. At that range he apparently felt able to talk. At that

range, Arpad felt overwhelmed and edged back a little.

The old man edged after. "What are you doing here, boy?" He scrabbled at him with a hand. "What are you doing?"

The sound of the old man's yells of outrage brought Bill charging into the hut. Arpad was ducking away and the old man was ineffectually trying to strike him. The bowl of food was spilled in the dirt.

"What's going on here?" Bill asked as he boosted the old man back onto his pallet with the tip of his toe.

In complete indignation, the old man said, "He told me his name. I never saw such bad manners."

"It's you who don't know what's good manners," Arpad said. "I was taught never to speak to my elders unless I introduced myself."

They both looked at him. They didn't say anything; they just looked at him.

Then Bill said, "You just don't know any better, I guess. Coming from the Ships the way you do, I suppose you wouldn't. I never thought they had any notion of what is fitting. You seem like a good boy and I don't think you mean any harm. You'll learn what's proper."

He turned to the old man and said, "What does one debt more or less mean to you now? Besides we may not owe him anything."

Arpad said, "I still don't understand. You told me your name."

Bill looked puzzled. "I never did. I wouldn't do a thing like that."

"Bill."

He tried to confine his laugh and it came out in an amused snort. "Bill isn't my name," Bill said. "You really don't know anything. That's the Village Name—we're all Bill until we decide about you."

All the men in the village were assembled—fifty men named Bill—sitting cross-legged in the dirt of the Council Hut, when Arpad was brought in by the Bill he knew best. All the men were wearing their flat-crowned hats. By this time it was quite dark out. There was a good bright fire going in the center of the circle of men. There were no women present. The leader waved Arpad to a place at the center of the circle, close by the fire.

"Now," said the leader, "we've talked things over among us, and we've decided to let you tell us who you are. Are you willing to trade names?"

"May I say who I am now?" Arpad asked, and he heard someone murmur, "The boy is well brought up."

Arpad said, "I don't really understand your customs. Why can you tell your name some times and not others?"

It was almost as though the leader had never been asked the question before and he had to work out a proper answer. He looked a bit overwhelmed. Then he said, "Well, if you know a man's name you have to discover whether you owe him anything or not. Naturally. So you both have to agree that you are willing to accept the burden of each other's names. Do you agree?"

Arpad nodded. He didn't quite see the point of it all, because he knew he hadn't seen any of the people here before, and he was sure he couldn't owe them anything.

"My name is Arpad Margolin," he said, and stopped.

The leader said, "What about the rest?"

"The rest?"

"Your family."

"Well, my father was named Henry Margolin, and my mother was from New Albion and she was named Nesta Han-

sard." He stopped again.

"Don't you know your family?" the leader asked. "Can't you name them all?"

Arpad shook his head slowly.

"How very odd." The leader shook his head, too, and thought. At last he said, "Well, let's see if we can find a way around."

With shrewd questioning, it was finally settled exactly which Ship it was that Arpad came from as distinct from all others. It was also settled that this was not the Ship that had carried the colonists to Aurora and that Arpad had no relatives (to the best of his knowledge) on any other Ship.

The leader then stood up and said, quite formally, "Does anybody here present claim or acknowledge debt or obligation?"

One man at the left of Arpad and the rear of the circle stood up and said, "My grandfather three times removed, Nobuss McCarthy, was a shippeen of this Ship. He named to his son all his debts, and his son to his son, and so to me, and he named among the men who cast him forth from the Ship one Oscar Margolin. A debt was judged against him in this village and the debt was never paid."

"Do you acknowledge this debt, or do you have a counter-debt to charge?" the leader asked.

Arpad said, "I don't know. I suppose he must have been an ancestor of mine. But I don't know anything about it."

The leader raised his eyebrows and then said, "Do you acknowledge it, then?"

"I guess."

The leader said, "McCarthy, what will you settle for?"

McCarthy looked at Arpad. "I'll take that knife of his."

The leader held out his hand to Arpad for the knife and wiggled his fingers for it. Arpad, still not altogether sure of what he was involved in, handed it over. The leader examined the knife closely.

Then he said, "It is worth more than the debt. McCarthy, can you stand to make a debt of your own?"

"Yes."

"All right. Take the knife, but I'll mind the boy's interests until he can mind them for himself and I'll be sure you pay the debt back."

McCarthy's neighbors all looked with envy at his new knife as he took his seat again.

The leader said, "Well, now that that is settled, tell us about the Ship and why you came to leave."

So Arpad told his story. From time to time he was interrupted and asked for clarification, and both because he had never told it before—people had always known who and what he was—and because his tongue stumbled, his account was halting.

Arpad's father had been a Planetary Agent, one of an active minority aboard the Ships determined to do good works to the colony planets, dispense largesse and knowledge of a better way of life, and generally improve the lot of the colonists. His father had taken this a step too far, marrying a local girl, a native, a Mud-eater, during his tenure on New Albion—"It's one thing to help these people, but after all, Henry, there are limits."—something that twenty years earlier would have caused him to be disinherited in the same abrupt manner as was the ancestor of the knife-possessing McCarthy for some earlier-day transgression. In any case, it was still the social equivalent of marrying a Negro, an Untouchable, or a Christian in times past.

The result was that Margolin's stay on New Albion was indefinitely extended, thereby saving his family and friends the embarrassment of his company. Margolin never came home again—he lived instead quite comfortably with his wife and child until he died. At this point his Shipboard associates decided that they just might have treated poor Henry a bit shabbily—he had, after all, more than done his duty in the dispensation of good works—and that they owed his child something. They proceeded accordingly to repair to New Albion, remove young Arpad from the altogether unsuitable care of his mother, and return with him to the Ship. That Arpad's mother resisted the idea was, of course, to be expected from one of her background, but that Arpad himself resisted loudly and physically only served to demonstrate how badly his father had done by him and how much he was in need of a proper education and an exposure to a finer way of living. Of course, once they had returned to the Ship, found Arpad a place in a dormitory, arranged for his education and scheduled his life, they were more than satisfied that they had done their duty by poor Henry and his issue and that it was now up to Arpad to take advantage of the opportunities Providence in their persons had presented to him. This, of course, Arpad had been completely unable to do.

He lacked background in the ways of the Ship, and it had taken him one full year of pain and humiliation to even begin to know how to act properly by local lights. He lacked sponsorship and consequently he lacked friends. Most important, because of what he was—a Mud-eater—he encountered hate and contempt in quantities that he could not cope with at all, and one full year had only done a little to lessen that. People

like Churchward, whose personalities depended on a particular view of the world, were unlikely to scrap what had been so laboriously constructed for the sake of one scruffy little boy. So, given the opportunity to decamp—an opportunity that could not be eternally denied him—Arpad had taken it and split in search of a life more closely resembling the one he had once had. And that had brought him here.

When he was done, the leader said, "It's just as I thought. The people of the Ships have no sense of fitness or decency. They treated you shamefully."

He put his hand on Arpad's shoulders. "You have come to the right place. We will feed you and house you and treat you as one of our own. My name is Yoder Steckmesser."

The others all nodded and called assent. Then, one by one, they came up and made Arpad the present of their names, acknowledging thereby that he was *people*, someone they could and would stand in a relation of over-and-owed with. Then they all took their places again.

Then Steckmesser turned to the "Bill" that Arpad knew best. "Come here, Henry," he said. "Henry, you need a son, don't you?"

The man nodded.

"We may have one for you who brings you no debts." He turned to Arpad. "This is Henry Heine. He is an unlucky man. His ancestors have left him burdened with debts, the weight of years, and his father has only added to the burden. Henry has no son to follow him. He will have to wander forever after death under the pain of his unpaid debts. But now, if you are willing, you can be his son. His name and your father's name are the same, and that is

a lucky sign. It is a good sign for the future. Will you take him for a father?"

"Yes," Arpad said.

"Henry?"

"Yes," Henry said. His eyes filled with tears, he grabbed Arpad and kissed him heartily.

Then his wife was called into the Council Hut. When she heard that she had a new son, she smiled and cried at the same time, and held him tight.

They had an adoption ceremony on the spot. The other women in the village came into the hut with food and poteen, and after everybody kissed everybody and congratulations were passed around generally, and Arpad's claim on McCarthy was used to cancel one of Heine's obligations, everybody ate and drank. The party went on for hours.

When at last Arpad and his new parents returned through the dark to their hut, Sara, Arpad's new mother, said, "What about burying the old man?"

Heine said, "It's late now. Wait until morning, and then Steckmesser will give me a hand." Then he put an arm around Arpad's shoulder and pulled him in to what seemed the uncomfortably close standard distance here. "Don't be so cold, boy. Arpad. You know, I never thought I'd have a son of your age who didn't even know how to walk normally. You're a good boy, though. You'll learn."

In the morning when Arpad awoke, Sara had food warming for him and brought it to him with a kiss. The old man was lying silently awake on his mat in the corner. Heine was nowhere in sight. The day was cool and bright. Children were playing around the houses as Arpad ate, and he could catch occasional glimpses of them through the doorway, feet pounding, pushing, bouncing. A woman passed, pot on head, after water.

As Arpad was finishing his breakfast, Heine entered the hut. His short breeches were stained with dirt, and he was sweaty and tired. He greeted Arpad.

"All done?" Sara said.

Heine nodded and went to the pot in the corner for a drink. "Yoder will be here in a few minutes and he'll help me finish."

"Is there anything I can do?" Arpad asked.

"You can watch. We're just going to bury the old man."

Startled, Arpad shot a look at the old man and got an alert bright-eyed look in return.

"But he's not dead," Arpad said.

"Of course he is," Heine said. Arpad looked at the old man again and he nodded. "Since we adopted you last night."

Then Yoder Steckmesser cleared his throat, announcing his presence, and greeted Arpad. "Hello there, boy. How are you today?"

"Grab the other end there," Heine said. He reached down and picked up the head end of the old man's pallet. Steckmesser took the other end and they lifted pallet and old man together, maneuvered to get clear passage through the door, and carried him out. The old man just lay quietly, not objecting, passively accepting. Arpad stood and looked after as they disappeared from sight to the right up the street.

"Run along now," Sara said. "Maybe you can give them a hand."

Slowly Arpad went out of the door into the gentle sunshine. Heine and Steckmesser carried their burden along at a right good pace and nobody seemed to find their progress through the town in the least strange. The children didn't even stop playing. The old man, riding on the pallet, did raise himself to an

elbow to see where they were going more clearly. Arpad trailed along behind them as they passed out of the village and along a path at the foot of the hill he'd come down the evening before, and finally came to a cluster of little round mounds, a freshly dug hole and beside it a pile of friendly brown dirt. He stayed at a distance while the men straddled the hole and lowered the old man into the grave. The grave was shallow and rounded and when the old man was sitting in it his head was still above ground. There were shovels in the pile of dirt and the two men took hold of these and began to fill the hole. Arpad watched for a minute, but he just didn't want to watch the old man be slowly covered.

He turned up the hill and when he reached the crest of the hill shoulder he looked back at the village with the children still playing and then back at the men still shoveling dirt around the old man's shoulders. Then he walked on through the grass, trying to think.

He wished he knew what to do. He didn't really understand these people any more than he'd understood the Ship when he first came there. He wondered if it would be as painful to adjust here. If he had thought of the Ship as a place whose ways were not his ways, what of this place?

He felt agitated and uncertain, and no more happy than he had been in any recent time. Certainly not as happy as he had been yesterday when he had still thought somehow that he might find the life he had left behind. He was confused.

After he had been automatically walking and thinking for some distance, he came to himself and looked around. He saw then that his sense of direction had been carrying him away from the village

and back in the direction of the scout ship and the camp he had left a day and a half before.

He broke into a run then, a full speed gallop through the knee-high grass.

It was night before he found the camp again, and he was traveling much slower then. He came over a gentle hill and it was across the valley and the slowly-moving river from him, marked by the fire in its center.

Arpad went to ground on his side of the river and wormed to a place from which he could see the camp clearly. It was far enough into the night that people were asleep. He marked the movements of the guards and saw Churchward as he left the fire and prowled into the night.

Then Arpad remembered what Churchward had said about never passing him in the night and the idea came to him. He smiled to himself and made a determination.

After a time, he moved upstream until he was well out of range of the camp and there he found a quiet place to cross. The water was cool and shallow.

Then he moved with infinite care back toward the camp. He circled wide and moved from one bit of shelter to another. He moved slowly and he kept a constant eye open for Churchward.

When he saw him, he was about to cross from the shelter of a scrub tree to a dry gully. The motion was from an unexpected direction and Arpad caught just a flash from the corner of his eye. Heart pounding, he froze to the ground, hoping he hadn't been seen, wishing there were some way to be invisible. Like an odor on the wind, Churchward passed by and out of sight and never saw him at all.

In ten more minutes, Arpad was in

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If there's a demand, someone can always be found who will meet it, even if it's a brand new demand and it's—

A WHOLE NEW BALL GAME

RAY RUSSELL

Tonite me & Hank got ourselves another job to do for old Maggie. Some how i dont have the heart for it but there is \$5000 for the 2 of us. Pretty good bread even tho \$2500 dont go very far these days. Still it all adds up, 7 jobs last month, but only 3 of them for Maggie. Maggie pays best but what the hell it is some one elses money & i bet there is a lot more in it for Maggie than 5 gees.

We ought to charge more from now on i think. The job is getting tougher. When we first started out it was a snap. But now we got an awful lot of competition. A lot of amatures are getting in on the act, doing an odd job here & there for peanuts, \$200 or \$300, to support there habit. Punks. They do a messy job too, some times they screw it up so bad it is no good at all. They give the rest of us a bad name.

A few years ago we had a real scare. There was some talk in the papers & on the t.v. about how they were going to start up this farm in Florida or some place and breed gorillas or apes just for this purpose. That would have put us out of business. But the whole thing fell threw for some reason. Hank says the gorillas did not like the idea but he is all ways making with the jokes. I think maybe they found out gorillas are no

good for it or maybe the S.P.C.A. give them some static. What ever it was it sure worked out great for us but we did have a narrow squeek.

Then there is the fuzz. O they dont bother us too much, they know we are doing usefull work, why this job tonite Maggie says is for the police comisioner, but the fuzz half to make a few arrests just to look kosher so we got to be careful & watch our step.

Like last month. We was on a job, not for Maggie for another one, and there we were in the alley just finishing up and we see these lights and it is a god dam squad car all most on top of us. Boy did we split. We had to leave the stiff where he was, just laying there & we could not deliver so we lost the fee. That is bad because word gets out that you are not dependable & the next thing you know you are threw.

One time it was funny. It was the time when Hank took sick & we had this job to do for Maggie so i had to do it myself. Well you better beleive it was no picnic. There i was on the prowl for 2 hours & no luck when i see this square coming down the pike, young, in the pink, & no one else in sight. So I circle around behind him but he must have heard me & he turned around & who do you think it is but Red's kid brother Jack & it turns out that HE has

been tailing ME for a hit. So we laugh & say good luck & split, but i duck threw the alley & catch up with him around the corner & before he knows what is happening i cool him. It is too bad it was Red's brother but hell i was out 2 hours & it was getting close to deadline.

Some times i think i am getting too old for this kind of work. It is not like the old days when you did a contract & that was that. Like falling off a log. Nothing to it. Now you half to treat them like they was a crate of eggs or some thing & you half to dump them into the car & get them to the client in just a few minutes while they is still warm or it is no good. If the delivery is too late, like if you run into trouble, you dont get paid & there you are with a stiff on your hands & Maggie gets sore.

Of course his name is not really Maggie, me & Hank just call him that behind his back. His name is Maguire, Dr. Quentin Maguire M.D. He dont call us by our names either, he calls us Burke & Hare. One time i ask him what the hell does he mean Burke & Hare. So he kind of laughs & says that a long time ago in England or some place it was against the law to cut up stiffs to study them so the medics hired guys to dig them up from the cemetery, & when there was not enough burials these guys used to knock off live ones to collect there fee & the best of these guys was a team name of Burke & Hare. So Hank says well thats us all right, best in the trade.

Nowadays naturly it is no good to dig up the ones that are planted in the boneyard, they got to be fresh. One time i ask old Maggie why we half to bring the whole stiff to him, why cant we just bring him the heart, that is all he wants

anyhow. But he says he has to do .. himself, it is a delacate operation he says.

I bet those delacate operations net him 20 gees a piece. At least. Maybe 25, & tax free. He is not dum enough to declair the loot he takes in for these special jobs he handles for the rich customers. It is strictly a cash business. Some fat cat is fixing to croak from a bum ticker & so he sends for old Maggie & he is home free. Gets himself a nice new young heart & is good for 20 more years. He is happy, Maggie is happy, & me & Hank is happy. Of course it is not so hot for the stiff.

Maggie dont like it when we call them stiffs. He likes to call them doners. That dont make them any less stiff Hank says. But old Maggie he is kind of stuck up & says he is a benafactor of mankind & all that. He talks about his proffesional pride. He is even got a picture on the wall of another dr., name of Bernard or some thing, he says did the first of these delacate operations way back in 67. Well maybe you are a benafactor but i wonder what the doners would say about that, Hank tells him. It is only one of his jokes but Maggie dont laugh.

The bad part of the whole thing is on Sundays when i got to get into that box & tell every thing to Billy. O its not really a box any more, i just call it that, its a booth in Tony's bar near the back & of course Billy dont wear the coller like thay used to when i was a kid & he dont like to be called father but its hard for me to get used to the way it is now.

When i say it is bad, its not that i mind for myself but i can see it bothers Billy, it just tares him up inside i can tell. When i say father forgive me for i

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SCIENCE FICTION *

A new column by Greg Benford
and David Book

THE COLUMBUS PROBLEM

"Near the end of the third day, they went out of hyperdrive and accelerated inward. The instruments peered and murmured, and clicked forth a picture of the system. Eight worlds were detected. One of them circled its primary at a distance of slightly over one astronomical unit, and the ship moved toward it, matching velocities as she neared. Telescopes, spectroscopes, and gravitometers strained ahead during the hours of flight."

That's a passage from Poul Anderson's novel *Star Ways*. You can probably recall similar accounts of the arrival of a space ship in an unfamiliar solar system. As everyone knows, standard operating procedure is to count the planets first, then

decide which ones might be sufficiently Earth-like to justify exploration. A purely routine matter, hardly worth describing in detail.

Or is it? Just how would men in a survey ship locate the planets of a strange sun? Bear in mind that Pluto, the ninth planet of Sol, was only found in 1930, in spite of thousands of man-years of astronomical observations since telescopes capable of detecting it were first built. Even today, we're not really *positive* that there are no more local planets to be discovered, lurking somewhere out beyond Pluto. The problem is that planets and stars look much alike through a telescope, and there are an awful lot of stars. Clyde Tombaugh, the discoverer of Pluto, pointed out that there are 20 million other objects in the sky as bright or brighter than Pluto. The chief difficulty faced by planet hunters aboard the starships will also be to distinguish planets against a background of stars. So how do

earth-bound astronomers do it?

The most direct way of detecting planets arises from the fact that they can be seen to move. The five "astrological" planets change their positions with respect to the "fixed stars" from day to day or week to week, and this, together with their brightness, makes them very conspicuous objects. Even Pluto moves through an average of about ten seconds of arc each day; by contrast, the motions of stars relative to one another are measured in seconds of arc per year. This behavior of planets arises because both they and the earth are moving in orbit about the sun. For the more distant (from Saturn out), the Earth's motion is the principal factor, since the farther away a planet is from the sun, the slower it moves. To put it another way, the apparent motion of these planets would be only slightly altered if they stood still in their orbits, while we continued to swing around in ours. For the inner planets—Mercury and Venus particularly—both components of the motion are important. Mercury goes from one side of the sun to the other in only 44 days, changing from morning to evening star. Including the Earth's motion only adds a few days to this period. But of course, the stars behind Mercury (if we could see them—they're mostly lost in the sun-glare) are altered continually because of our motion, just like the stars of the night sky.

In space exploration, the planet-finding problem depends critically on the type of ship used. For the rest of this column we'll assume that the incoming starship begins slowing down when it is within, say, half a light year of the star system under investigation. By the time it is close, its speed will not be much greater than that of planets in their

orbits. Next issue we'll discuss the case of high velocities. Finding planets from a slowly moving spaceship is much like finding them by looking from a mountaintop. It's just as easy—or as hard.

There is no particular difficulty in discovering planets if they're large or quite close. But what if they aren't? Neptune and Pluto would never have been found (except by remote chance) without the aid of two important techniques: perturbation theory and the blink comparator.

The first of these is a mathematical method for calculating the effect of a small extraneous (or perturbing) force on a known planetary orbit. The only physical laws needed are Newton's. By studying anomalies in the observed motion of Uranus, U.J.J. Leverrier was able to deduce where a new planet must be and how much mass it must have to cause these perturbations. His colleague J. G. Galle pointed a telescope at the part of the sky Leverrier had indicated—and there was Neptune.

Similar theoretical considerations convinced Percival Lowell that there must be still another planet beyond even Neptune. His calculations were not precise enough to predict its position accurately, but they did suffice to give an indication of how fast the new body would appear to move against the background of stars, as well as its brightness: fifteenth magnitude. Neptune is of eighth magnitude; this means that Lowell's "Planet X" would be six or seven hundred times less bright than Neptune, and correspondingly harder to see.

A search by eye would be hopeless. To examine photographic plates showing enough detail to reveal the new planet, looking for the telltale track of light against a background of point stars, would be heartbreakingly arduous. This

was in fact what Lowell attempted to do at his observatory in Flagstaff in 1906, using 250 three-hour exposures taken with a camera having a five inch aperture. Plates showing a region of sky photographed on two different occasions were laid one on top of the other and systematically searched with a magnifying glass. Nothing was found. Lowell examined a second series of plates made by using a 42-inch reflecting telescope, with no better luck. He began another attempt, in 1914, this time with a nine-inch telescope borrowed from the Sproul Observatory. In 1916 Lowell died. The search was discontinued.

A blink comparator was employed in both of the latter two searches. This is a kind of microscope which can be used to view two photographic plates alternately, switching rapidly from one to the other. If one of the bodies shown on the plates moves during the interval between shots, it will appear to jump. Blink comparators have become the basic tool for locating planetoids, satellites and other objects moving in our local space. They transform an inhuman task into one that is merely tedious.

There are two reasons for the failure of these early searches: too small a region of the sky was examined and the photographic techniques involved were imperfectly developed. Also, by plain bad luck—as it turned out—the planet was about a half magnitude dimmer than its average in the years around 1910, being near the aphelion of its eccentric orbit.

Finally, in 1929, Tombaugh began the fourth search at the Lowell Observatory for "Planet X"—the one that succeeded. It was successful because he had equipment adequate to cope with the difficulties of the problem, and be-

cause he proceeded with painstaking thoroughness.

The search began in March of 1929. Although he tried to analyze the plates on the blink comparator as he proceeded, this took a lot of time. Some plates had over 300,000 star images, so that he fell behind on the plate-scanning part of the search. When this happened, he sometimes skipped ahead to less thickly populated plates, leaving the tough parts for later. It was while taking a breather in this fashion that he came upon "Planet X"—thereafter Pluto—on the plates of January 21, 23 and 29. This was on February 18, 1930. In the following nights, all of the telescopes in the observatory were trained on Pluto, now 20 days farther along in its orbit. The discovery was announced from the Harvard Observatory three weeks later, on Lowell's 75th birthday. Subsequently Harvard astronomers reported that Pluto appeared on one of their plates, exposed in 1914—but had gone unrecognized.

Tombaugh, like his predecessors, might easily have missed Pluto if it had not happened to be close to the point where it crosses the ecliptic. So Tombaugh continued his search around the zodiac, then photographed and scanned a broad swath on either side, until most of the heavens had been explored. In all, he examined almost 100,000,000 star images. Needless to say, he found no more planets. On the basis of Tombaugh's prolonged and intensive study, it can be concluded that there probably aren't any more—or if there are, they're *really* far away.

Tombaugh's search is of more than historical interest; this is the basic technique for finding planets. Ingenious "black boxes" invoked as an alternative represent wishful thinking, not faith in

the march of progress. Consider what is involved in observing an astronomical object. The basic requirement is that it emit something—particles or radiation—that can be registered on instruments. Well, stars pour out a copious stream of charged particles (the “solar wind”) and of neutrinos, but planets do not. The latter do cast “shadows” in the flux of particles sweeping past them, but this effect is so miniscule that it can be disregarded in comparison with the radiation alternatives, which are far easier to detect. As for radiation, there are only two types detectable over astronomical distances: gravitational and electromagnetic waves. Gravitational waves, predicted theoretically, may possibly have been detected in a recent experiment. If they exist, they must be very weak, but they might be useful in detecting planets, since a planet rotating periodically in its orbit could be expected to emit gravitational waves in the same way a gyrating charge radiates electromagnetic waves.

This brings us to the two practical restrictions on an observational technique. Whatever is being detected must have been emitted with sufficient *intensity* that it is measurable at large distances. It must also be possible to *resolve* the signal so as to be able to tell planets from stars and background. For example, optical telescopes enable us to see stars too faint for the unaided eye as well as binary stars which would otherwise look like single points of light. Not all telescopes perform these two functions with equal efficiency. In general for waves of all sorts, the shorter the wave length, the better the resolution. Gravitational waves, even if they could be registered with great sensitivity, would be useless for determining the number

or position of the planets in an alien solar system because the wavelengths associated with them would be longer than the dimensions of the solar system itself.

That leaves electromagnetic waves—infra-red, light, radio, x-ray and so forth. We can either look at the radiation emitted or reflected naturally by the planets or shine a beam out into space and look to see where it bounced back—that is, use some form of radar. All of these are techniques employed by present-day astronomers studying local planets. They will surely be improved.

Radar-like devices are particularly interesting. It is not necessary to use microwave lengths, as present day radar does; lasers can be employed to make use of intense beams of visible light for the same purpose. Radar has been used to provide the most accurate measurements of distances within the solar system, but it is hard to imagine it taking the place of optical astronomy as a means of finding planets. There are two difficulties. First, the power requirement varies as the fourth power of the distance. (This means that if a planet is twice as far away as you thought it might be, you'll have to expend sixteen times as much power to see it. A power law this rapidly changing is unusual in physics—usually things drop off with an inverse square, like gravity. The radar waves we're talking about here work the same way, but the catch is that with radar the waves have to be reflected off some object and sent back to us. Two inverse square laws are applied in succession. Both the primary beam and the scattered wave spread out as they pass through space, so that most of the initial energy never gets back to us.) Equipment now in existence can just about detect

radar echoes from Jupiter; it would have to be 10,000 times more sensitive to "see" Neptune, even when we already know where to look. At a distance of one light month or 5,000 astronomical units (abbreviated A.U.; an astronomical unit equals the averaged distance between the earth and the sun, 93,000,000 miles), it would have to be a billion times better still. This means expensive and probably bulky apparatus aboard the space ship, even if its builders don't mind power outputs on the order of billions of megawatts. The second problem is that at the distance stated, the signals (propagating with the speed of light) would take two months just to get to their target and bounce back. Of course, the closer the space ship approaches, the easier radar viewing becomes; but this is true of the alternative techniques as well. At any rate, it's worth thinking about.

Normally we think of planets as shining only by reflected light, emitting no radiation themselves. This is not quite right. Every object with a temperature radiates at all wavelengths, the spectrum resembling that mythical creature, the perfect black body. The wavelength for which this radiation is a maximum is inversely proportional to absolute temperature; for example, Venus, with a surface temperature around 600°K, radiates mainly in the near infra-red, while the surface of the sun, which is at 5,800°K produces maximum intensity in the visible spectrum (that, in part, is why it is visible; our eyes are adapted by evolution to make the most use of the sun's radiation). The *intensity* of the radiation increases with temperature, as you'd expect; everybody knows a brighter object is hotter. Thus Venus should have a radio output about one-tenth that of

the sun, per unit area, and Jupiter, which has a temperature of about 200°K, one third of that.

Surprisingly, this simple black body picture breaks down badly in the case of Jupiter. Because of electrical phenomena in the Jovian atmosphere resembling lightning storms, and radiation emitted by electrons trapped in Jupiter's Van Allen belts, bursts of radio waves are observed which make Jupiter's radio "image" almost as bright to us as the sun's, even though the sun is closer and has a hundred times as much surface area. The origin of this intense radio emission is only imperfectly understood; probably, though, all planets with charged particle belts trapped in magnetic field emit similar radiation. (We are shielded from Earth's Van Allen belts by our lower atmosphere, which however passes the higher frequency radio waves from Jupiter.) A planet without magnetic fields similar to Earth's would be bombarded by an uncomfortable intense cosmic ray flux at the surface, and so would not be nice to live on anyway. So if our space-ships have been sent to find livable planets only, we might just scan for planets in the radio bands of the electromagnetic spectrum and forget the rest.

The power emitted in planetary radio waves is far less than the power emitted in the visible band by the sun, much less even than the power in the light reflected by the planets. But radio astronomy has developed exceedingly sensitive receivers, so that emission like that from Jupiter can be detected as far away as several hundred A.U. Beyond this distance, it would be hard to distinguish against the cosmic background.

But remember our requirement that it be possible to resolve the images of planet and sun. The bigger the diameter

of our telescope or receiver, the easier it is to do this. (And the greater the wavelength, the harder it is.) Thus Jupiter *could* be resolved visually from the sun at 12 light years with a 200-inch telescope (though it would be too faint to show up on plates at that distance). The biggest radio telescope now in existence would have to be stationed 1000 times closer to resolve the two bodies. If more than one receptor is used, interferometry (in which the signals from the individual detectors are compared with one another) can be used to improve the resolution dramatically. For this to work, the distance between receivers must be many times greater than the wavelength of the signal received, which is typically on the order of a few centimeters or meters. Thus radio observations of quasi-stellar sources (quasars) in the centimeter wavelength band have reached resolutions of .03 seconds, matching the theoretical limit of the 200-inch Hale telescope in this respect, but the baseline of the interferometer used is 70 miles. Such an arrangement would prove unwieldy in an interstellar space craft, at least during acceleration.

All in all, it appears that planet hunters will have to depend for direct observations principally on the scant visible light reflected by planets from their suns. But what about making use of indirect observations? Is there a possibility of detecting planets through some perturbing effect they have on their sun?

Astronomers have already discovered such planets—probably. Barnard's Star, six light years away, Lalande 21185 (8.2 light years) and 61 Cygni (11.1 light years) all show a minute periodic motion superposed on their proper motion against the relatively fixed background of distant stars. In other words, when

they are carefully observed over a period of years these stars appear to follow a trajectory like the weight at one end of a thrown dumbbell. The counterbalancing "weight" is invisible in each case, unlike the parallel situation of binary systems where two luminous stars revolve about their common center of mass. However, it is possible to estimate the masses of these "dark companions" from the observations. The companions of 61 Cygni and Lalande 21185 are both around ten times as big as Jupiter, but that of Barnard's Star is about as massive as Jupiter and Saturn together. It is too small to be a star; the only other thing we can call it is a planet. The proper classification is not so clear with the two larger objects. They approach the mass range for which the squeeze caused by gravitational forces in the center produces pressures and temperatures great enough to initiate thermonuclear fusion, the source of the energy radiated by stars. In fact, they may be shining, but too dimly for us to detect.

Recently, Van de Kamp of the Sproul Observatory found evidence for what looks like a second planet accompanying Barnard's Star. His reasoning parallels that of Lowell in predicting Pluto. During the course of many years of observation, the star displayed minor irregularities in its motion over and above the periodic wobble caused by the "dark companion". These must be caused by another object of planetary size. It seems to be smaller than the one previously found, somewhat less massive than Jupiter. It apparently revolves in the same plane as its sister planet with a period of about twelve years and a mean radius of about 2.7 A.U. The larger planet has a mean orbital radius approximately equal to that of Jupiter, while the smaller

one follows an orbit the size of our asteroid belt. (Neither is close enough to support known life forms, though, because Barnard's Star is too dim.) This violates the orderly scheme of numbering planets *outward* from their sun, even assuming that Barnard's Star has no more planets. But it is too much to expect the planets to announce themselves to astronomers in strict order like an army squad sounding off.

These planets, or super planets, were discovered with earth-bound telescopes by means of very marginal observations. Like all astronomical work thus far, they suffered from the necessity of having to be made through the obscuring curtain of Earth's atmosphere. We can expect that when a sophisticated astronomical observatory is built on the Moon or in an artificial satellite, observations will improve by at least a factor of ten. Among other things, this is almost bound to mean the discovery of additional extra-solar planets. They will not be Earth-like, however. Even with the largest contemporary telescopes placed in free space Earth couldn't be seen more than a third of a light year away.

There are more ways which might be used to observe the effect of a planetary object on a solar one, however. The first is spectroscopic: the perturbations in the star's motion due to its planetary companion would lead to periodic variations in the component of its velocity along the line of sight, which in turn would periodically Doppler-shift spectral lines. The shift would be about a ten-thousandth of an Angstrom, less than can be detected at present, but perhaps not out of reach of foreseeable improvements in spectroscopy.

Still another suggestion—wholly conjectural—is that radio emission from a

star might be "tuned" by a planet in the same fashion that the long wave length components of Jupiter's radio spectrum appear to be controlled by the position of Io, one of its moons. It is worth noting that there seems to be some correlation between sunspot activity and the appearance of Jupiter's Red Spot, too. Such ideas, like most aspects of planetary astronomy, could best be evaluated if we had a few more planetary systems to work with. But that is what we are trying to find.

These methods hold out little promise of finding Earth-like planets. Still, other things being equal, a star with big planets seems more likely to have terrestrial planets than one about which we know nothing. Interstellar probes will be too expensive to toss around casually, so astronomical resources will be exhausted first. NASA or its twenty-first century equivalent will eventually realize this, so that the next half century should yield really breathtaking technical advances in astronomical observatories. But to see the most interesting sights, we will have to drive out to some of the nearby stars and take a close look.

Probably the first star ships will be slow, taking many decades to reach even the nearest stars. Partly for this reason and partly for economy they will be unmanned and men will follow only when travel becomes easier or when unmanned probes have reported something of importance (like the existence of a planet "... Earthlike to many points of classification ..."). Even if the first probes are not piloted by men, we can expect that the onslaught of progress in automation and cybernetic control will make machines available which are just as capable of operating instruments.

Some steps have already been taken

which will help in automating the photographic planet search. In elementary particle research, millions of photographs or plates have to be scanned for the few interesting "events" which reveal new information. At MIT's Lincoln Lab and at the Bevatron installation in Berkeley there are computer-controlled machines which systematically scan plates showing tracks inside bubble chambers, recording (or "digitizing") coordinates so that the events can be numerically reconstructed and analyzed by the computer. These machines have rather crude pattern recognition capabilities by astronomical standards, but they give an indication of what can be expected in time.

So this is the picture we get of a low-velocity (that is, moving at about planetary speeds, ten miles a second or so) interstellar probe. It is not particularly encouraging for those of us in science fiction, because finding planets with such a ship is hard and time-consuming. If engineering problems prevent our descendants from building any faster ships, one could hazard a guess that not many of them will be built, because they will be expensive. The ships will have to carry a lot of equipment. The society of that time may not be willing to build many of them because the return in hard data will be a long time coming. It will take decades to reach Alpha Centauri, the closest star, and a heavy payload of detection equipment will mean correspondingly less weight for the job of looking over the planets once they're found.

Even if a faster-than-light vehicle were somehow (miraculously, as it now appears) developed, the planet-finding problem would remain. Because the FTL ship would have to slow down to ordinary cosmic speeds in the neighborhood

of each new solar system—and then there are all those damned lights out there again, stars and planets looking just like one another.

But this is the most pessimistic view we can take. There is a brighter side—if near-light ships are available. We'll go into this next issue. For the present, though, we'll merely drop a hint: Columbus sailed with three ships.

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General

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(This conference is held every two years; The 1966 meeting took place Sept. 9-10, at Stanford, Calif., sponsored by the International Union of Pure and Applied Physics and the U.S. Atomic Energy Commission.) See reports of sessions E, K, L, P.

The quotation in the first paragraph of the article is from Poul Anderson, *Star Ways*, Ace Books, Inc. (1957), p. 101, by permission of the author.

(Continued from page 99)

have sinned & tell him about the stiff
i have cooled that week he says my
son—he forgets himself & calls me my
son—you must stop this way of life &
give yourself up. But i say father if i
dont do it some one else will. You know
i am not the only one father, i say, i bet
most of the guys you see in this box
make a living the same way & then
when you think of the guys you dont
see at all because there not of the faith,
why it is a hell of a lot, excuse me
father. This is the modern world i tell
him, you half to get used to it just like
i had to get used to not calling you
father & all that. Its a whole new ball
game Billy, i tell him. Its what Maggie
calls the law of supply & demand. But
Billy he dont say anything & i can tell
he feels awful. Some times i feel sorry
for that young fella, he is just eating
his heart out, he cant tell no body not
even his wife & kids.

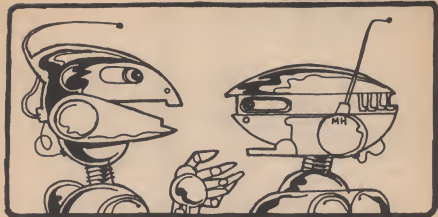
Well i guess its about time i went
out & met Hank & did this job. The

thing of it is i all most hate to go. Hank
has been acting funny lately. Saying i
should take a smaller cut because he
does all the heavy work, but that is a
lot of bull. He is younger & stronger but
i have all the brains & know how. What
i think is that he is fixing to cool me &
deliver me to Maggie tonite & collect
the whole fee & take over the business.
If he does he will be sorry & so will
Maggie & a whole lot of other drs. we
work for.

Because i am putting this in an enve-
lope & giving it to Billy & telling him
to mail it to the feds if he dont hear
from me by midnight. You know, it
might not be a bad idea for me to beat
Hank to the punch & deliver HIM to
Maggie. After all Hank is young & in a
lot better shape than i am, in fact he is
just what the dr. ordered for the police
comisioner. Yes Maggie would like it
better that way & hell i got my profes-
sional pride the same as him.

—Ray Russell

ON SALE IN JANUARY AMAZING
MOONTRASH by Ross Rocklynne, *QUESTOR* by Howard L.
Myers, and the final installment of Philip K. Dick's greatest novel,
A. LINCOLN SIMULACRUM.



* THE CLUBHOUSE

Something new is happening in science fiction fandom; a new kind of fanzine is emerging. It is a large-scale, large-circulation fanzine, often with a near-professional quality of appearance, and deals with the entire science fiction world of prozines, fanzines, conventions, movies, paperbacks, and tv shows as a single whole. To an outsider just entering the science fiction field, this may not seem so revolutionary, because it is the logical place of amateur magazines in a literary genre, but the revolution is profound, because before this most fanzines have either concentrated on fandom for its own sake or concerned themselves with science fiction only as distant observers (if they were related to sf and fandom at all). Most still are. But now, there is a new trend in fanzines. The lines between "fan" and "pro" are breaking down. (Sf has always been a field in which the observers were partly participants, but the divisions are vanishing

now almost as we watch.) The dynamic changes in sf are now taking place as much in the pages of fanzines as in professional circles.

This kind of fanzine was pioneered, in many ways, by Ray Fisher's ODD. Fisher was the first in recent years to use multilith duplication for a "printed" look; he also used articles that reflected both the fan and pro worlds and the relation of both to the outside world. SCIENCE FICTION REVIEW has been another leader in this direction; SFR captured the attention of fandom by being a focal point of fannishness for a while, and now many fans are following editor Richard Geis as he moves more toward a widely-read, semi-professional journal of science fiction. Los Angeles' SHANGRI-L'AFFAIRES has attacked the same problems from a more strictly fannish standpoint; SHAGGY has managed to combine the old-time fannish spirit simultaneously with the Love Gen-

eration and the new-found vigor in the pro field. Andy Porter's *ALGOL* is doing a stunning job of examining science fiction from the writers' standpoint and of bridging the wide gaps between fandom in North America and the new foreign fandoms. Pete Weston's *SPECULATION* and Graham Charnock's *PHILE* have served as critical journals for the British "New Wave" for some time, as John Bangsund has done with *AUSTRALIAN SCIENCE FICTION REVIEW* in Australia. (Lest established fans think that I'm naming all professionally-oriented fanzines, let me point out that Leland Sapiro's *RIVERSIDE QUARTERLY* is a perfect example of the opposite side of the coin; it is a musty, scholarly, very Serious-&-Constructive magazine that hardly has time for frivolities like fandom.)

There is something of a conflict in my mind—and in many others'—between this new, dynamic science fiction scene and the old, happy traditions of an intimate fandom and a small-scale sf genre. There are things about the old that none of us want to give up; I think our best reaction will be to carry the good with us into this emerging boom. Despite nostalgia, there is too much to this new science fiction field to let one reject it; it could almost bring to life the old fannish adage (which has been both fiercely defended and eloquently ridiculed) that "Fandom Is a Way of Life." If "Fandom" means the whole fannish-professional gestalt, which includes all of sf from *AMAZING* and *FANTASTIC* to "Star Trek" and *3/2: A SPACE ODYSSEY*, then it can be taken as perhaps the most dynamic artistic revolution in modern society. Not only is there more freedom of idea and style and more creativity in our fiction than ever before,

but in the fanzines that support it are outlets for all sorts of creative impulses in prose, poetry, and visual art; there are even strong connections with films, television, and modern music. Taken in this sense, Fandom, or Science Fiction, can be a launching pad for a positive approach to the rest of the world.

Whatever is happening, it's moving forward, fast.

SCIENCE FICTION REVIEW # 30, April, 1969; 50¢ or \$3 per year; bimonthly, from Richard E. Geis, P.O. Box 3116, Santa Monica, Calif. 90403; 68 pp., offset.

It's difficult to say much about this issue of *SER* that I haven't said in reviewing the last two issues. It was once the fanzine that sparked a renaissance in fandom, and it has since gone from mimeograph printing to half-size and offset and has become more oriented toward the professional world than the fannish one. Although Geis hasn't quite managed to keep to his bimonthly schedule, he has done a pretty good job of trying, in an era when a fanzine seems capable of appearing consistently on a regular schedule, and he has kept *SFR* a fascinating and attractive fanzine. He promises changes in the future, though, so I can only judge this as an interim issue: it has completed the trend from being a center of fandom to being only a center for the concerns of this one fanzine, and what new directions *SCIENCE FICTION REVIEW* will take are anyone's guess.

The material in this issue is mostly either purely entertaining or thought-provoking, but in a minor way. The amusing movie reviews of bad sex-sf and historical films by Roy Tackett and Poul Anderson (respectively) fall into the entertainment category, as does Jack Gaug-

han's rather weird account of the withdrawal symptoms of an ex-smoker—much like a psychedelic trip, according to Jack's description. The book reviews (all 20 pages of them), the prozine reviews, and Harlan Ellison all fall into the mildly thought-provoking category. Perhaps the only thing that doesn't fit one or both of these two categories is parts of the lettercolumn—the parts dealing with a rather childish and contrived feud between an organization calling itself the Second Foundation (consisting mostly of John J. Pierce and Sam Moskowitz) on one side, and Harlan Ellison (and, it seems, most of fandom—the part that gives a damn, anyway) on the other. The feud is being waged over the relative merits of the “New Wave” in science fiction writing. I find it exceptionally hard to believe that anybody could still be interested in arguing this dead issue, which has been discussed enough in fanzines and at conventions that all the important points have been made and, indeed, the term “New Wave” has been demolished as a valid description, but somehow a lot of fans and pros seem to have enough rhetoric left in their souls to debate the question forever. I wish they would do it somewhere private, though.

SCIENCE FICTION REVIEW continues to be one of the more attractive fanzines, and if it has ceased to attract many writers on purely fannish subjects, it is still the haven for some of the best fannish cartooning being done. In particular, SFR has been displaying lately the talents of Mike Gilbert, whose non-cartoon work has been noteworthy for some time (he has a style very reminiscent of Gaughan's), but who is now showing himself a talented cartoonist as well. *Highly Recommended.*

THE NEOFAN'S GUIDE TO SCIENCE FICTION FANDOM, 25¢; compiled and edited by Bob Tucker, available from Robert and Juanita Coulson, Route 3, Hartford City, Ind. 47348; 18 pp., mimeographed.

This is not a periodical; it is a one-shot publication, intended as a helpful guide to newcomers to fandom. As such it serves its purpose excellently. Bob Tucker is one of the most well-known fans in fandom, and it was he who almost single-handedly introduced humor to fandom in the Thirties. He is still an active fan, and this NEOFAN'S GUIDE is a thorough revision of an earlier edition published in the mid-Fifties. It is not newly-published; this edition was published in a print-run of 400 copies in August, 1966. I have heard that the Coulsons are running low on copies, but there are some still available, and I expect that they will reprint it sometime soon.

Besides explaining fandom much better than I could ever hope to do here and providing a glossary of fannish terms, the NEOFAN'S GUIDE is very amusing, and nicely illustrated with cartoons by Bill Rotsler and Dave Jenrette. It's a must for any new fan, and probably for most readers of this column. *Highly Recommended.*

ODD MAGAZINE # 20, Summer, 1969; \$1.00, no long-term subscriptions; irregular, from Ray and Joyce Fisher, 4404 Forest Park Ave., St. Louis, Mo. 63108; 106 pp., mimeographed.

Since ODD is produced by the co-chairmen of this year's worldcon, you can imagine that it hasn't been appearing very frequently lately. But they felt they had to get this special issue out before the convention, because

it's the 20th Anniversary Issue. Not just 20 issues—20 years. ODD was published for its first thirteen issues as a messily-mimeographed fanzine and came out irregularly back in the late Forties and early Fifties. Then it was suspended and Ray Fisher dropped out of fandom. Four years ago or so, though, Ray returned to fandom and revived ODD, thus giving us the first of the recent rash of old fanzines to return from the grave. It was also one of the first in recent years to use multilith printing; Ray received criticism for it because it didn't seem "fannish" enough to many fans, and he refined it until ODD became a very attractive fanzine. In the meantime many other fanzines took up multilith, and now it's a widespread phenomenon. In this atmosphere of change, Ray took great delight in bucking his own trend by switching back to mimeograph with this issue—and in the process producing some of the finest mimeography fandom has seen in a decade.

ODD has always been something of an artist's fanzine, so it can be counted on to have a good deal of excellent artwork. The gem of this issue is a gigantic cartoon war between Jack Gaughan and Vaughn Bode; it occupies 26 pages and is vastly entertaining. In addition to this there are good cartoon strips by Mike Gilbert and Johnny Chambers, and miscellaneous art by many others.

It used to be that ODD's contents never seemed to fit together quite right; there was good stuff in the fanzine, but somehow everyone seemed to feel that there was a certain coherence missing. Not any more. The contents of # 20 are almost uniformly excellent, and ODD must now rank up there with the very

best current fanzines. Personally, I most enjoyed Jack Gaughan's rambling account of his new home in rural New York and Joe Haldeman's excellent description on the life and times of a soldier (himself) in Vietnam, but you may prefer Michael Moorcock, editor of NEW WORLDS, on the so-called "New Wave" and what he has tried to do as an editor, or Dick Lupoff on trying to figure out which new records to buy, or Vaughn Bode's "Swing Left, Chaboocheck." Both editors are also fine writers, although their editorials are too short, and Joyce Fisher is an excellent poet, even though she chose to be represented by only one poem this issue.

There is only one stinker in the entire 106 pages: Richard Gordon's column, "England (Ob)scene and Observed." Gordon has written an interesting column in the past, but this one is nothing but an extended trip into his own depression, a trip in which he lures you into the vertigo of his own prose and spits you out at the end with nothing but a mild depression of your own. A very poor offering.

The only thing left unmentioned is the lettercolumn, which is short this time, but interesting. If you send for ODD, I suggest you write a letter of comment on it when you receive it, since the Fishers have been cutting down the mailing list drastically, trying to cut off all the people who don't respond. There probably won't be another issue until at least October of this year, but when it does come out again, it will be something to be sure to get. *Highly Recommended.*

ALCOL # 15, Spring, 1969; 60¢ or 5/\$2.50; quarterly, from Andrew Porter, Apart-

ment 3-J, 55 Pineapple St., Brooklyn, N.Y. 11201; 64 pp., mostly spirit duplicated, along with mimeography and offset.

ALGOL is a very fine-looking fanzine, with a great deal of art, as opposed to illustrations. It is also filled with good material; it complements and in some ways surpasses SCIENCE FICTION REVIEW by printing, rather than lots of book reviews, articles about sf authors on their own work. In this issue is a fascinating article by Norman Spinrad on what went into the writing and publishing of *Bug Jack Barron*, as well as Samuel R. Delany writing not on his own work but on the sf field in general, comparing sf to the string quartet and mainstream fiction to the symphony.

This isn't all that ALGOL publishes, though. There are the usual columns by Dick Lupoff and Ted White, both old standbys in the fanzine: "Lupoff's Book Week" is always an excellent column of in-depth reviews, and Ted's column, aptly called "My Column," is a low-key reprint of comments and opinions on various things, that had a small circulation in its original version.

In addition to this, Andy continues in his editorial the discussion he started last issue of the new, growing fandoms in many foreign countries, and the ramifications that they will have for American fandom. (This is the first time that extensive fandoms have sprung up in non-English-speaking countries; there have been fandoms in Canada, Britain, and Australia in the past, but they've mostly considered themselves one with American fandom.) He presents some new ideas on the future of international fandom (Andy was one of the first to push for the five-year rotation plan for worldcons, whereby every five years the con

goes overseas), and in the lettercolumn several people respond to the comments made last issue. The lettercolumn in ALGOL is its weakest part. The articles and columns are good, and Andy is an excellent editor and a good writer, but the lettercolumn doesn't live up to the level of the rest of the fanzine. It's not that Andy hasn't edited it well; it's just that he hasn't gotten very good letters. *Highly Recommended.*

L'ANCE JACQUE # 3, Winter, 1969; 35¢ or 3/\$1; irregular, from Ed Reed, 668 Westover Rd., Stamford, Conn. 06902; 62 pp., spirit duplicated with a little mimeography and offset.

Ed Reed calls this his "Build a Fanzine" kit. It's sort of a McLuhanesque affair, in that the whole thing is broken down into sections, ranging from a single page (cover, contents page) to several (the poetry section, for example), none of which are attached to each other. In this way you can put them together any way you want. Build a Fanzine. Reed says that he has ideas for the next issue of making up pages of interlineations and illustrations to be pasted in wherever you want.

On the whole, this novel idea is interesting and amusing. L'ANCE JACQUE has always been a sort of ordered chaos, and this is just a logical extension. However, it has also always had a serious fault, which shows up again in this issue: the writing as 'well tends to be chaotic. Various people opine on lots of topics throughout the issue, but too many of them do it in a completely structureless and nearly meaningless manner. The best items in the issue are J.J. Pierce's letter, in which we get detailed information on Pierce's background and how he came to champion the cause of reaction in sf,

and Dear R. Koontz's excerpt from a forthcoming novel, which evokes a poetic, if brief, look at a future world. It's surprising, on the whole, just how thin the material in this issue is, considering the number of pages. I wish Reed would control his chaos a little more, to the extent of including more content and more lucid writing. *Interesting.*

STAR TREK CONCORDANCE, \$5.00 ± 25¢ postage and handling; compiled and written by Dorothy Jones, edited by Bjo Trimble, 417 N. Kenmore Ave., Los Angeles, Calif. 90004; 88 pp., multilith.

This volume is a complete catalog of all the "Star Trek" episodes for the television show's first two seasons. It is, in essence, a guide to "Star Trek," and a reference work for anyone trying to locate information on the show. It is also a monumental work, which captures the feel of a self-contained science fictional world better than the show itself did. (The tv episodes tended to turn out inconsistently quite often because of the exigencies of television writing; while the compilers of the CONCORDANCE have not changed any of the details of the show, they did approach it with the idea of an internally-consistent world. Thus "Star Trek" has more the ring of truth to it in this concordance than it actually did on the tv screen.)

The contents are very interestingly written, from the synopses of episodes to the alphabetical listing of all names and terms used in the show. The volume is also very well illustrated; some of the illustrations are magnificent. Anyone interested in "Star Trek" will probably like this. *Special-interest; recommended.*

□ A GUEST REVIEW by Ronald Archer:
Maybe sf fandom was the first, but for

some time now it has not been the only "fandom" around. For the past decade or so, comics fans have been putting out their own fanzines, and so have the horror-movie fans. In both cases, these "other fandom" fans have borrowed wholesale from sf fandom's traditions, ingroup language, and general heritage. Unfortunately, the results have been mostly unimpressive—to the average sf fan, at any rate.

A few years ago, a pair of long-time sf fans, Len and June Moffatt, decided to start up a fanzine devoted to the works of one of their favorite mystery writers. The result was THE JDM BIBLIOPHILE. "JDM" stands for John D. MacDonald, author of two sf novels and something over forty mystery novels, including the "Travis McGee" series.

It's a strange and oft-remarked-upon fact that although mystery fans have had as much impetus to form a genre-wide fandom, they never did. The Baker Street Irregulars have been around for years, of course, and perhaps the associate (non-writer) memberships in the Mystery Writers of America helped fill the gap, but a fandom analogous to sf fandom never really took hold.

Until now.

THE JDM BIBLIOPHILE is now in its eleventh issue, and fat with articles and letters, including a long one from JDM Himself. But the BIBLIOPHILE is determinedly limited to the works and worldview of one author, despite the fact that its readers seem to insist upon talking about as many related writers and books as they can. The inevitable result of this is that other, more generalized mystery fanzines have sprung up to meet the need.

I haven't seen them all, but two issues of THE MYSTERY LOVER'S NEWS-

LETTER were sent to this column for review, and it seems to fill the bill admirably if you're looking for a broad-range mystery-fandom fanzine.

Both issues are neatly mimeographed (as also the BIBLIOPHILE), somewhat lacking in editorial personality, and contain news and reviews of new mystery books, interviews with such writers as Phyllis Whitney and Stanley Ellin, scholarly articles about writers and characters as diverse as Nero Wolfe, Nick Carter, and Ernest Bramah, checklists of various authors' works, queries from readers, etc.

The NEWSLETTER is far colder and more formal in personality and appearance than the BIBLIOPHILE, and I would suppose that to be because the Moffatts are too much sf fans to take themselves as seriously.

I'm not sure that mystery-fandom fanzines deserve regular review here, in the fanzine review column of a sf magazine, but certainly we are kindred spirits—mystery and sf fans—and I want to wish these new fanzines all possible luck.

—R.A.

THE JDM BIBLIOPHILE, 25¢ a copy; edited and published by Len & June Moffatt, P.O. Box 4456, Downey, California 90241; 34 pp., mimeograph. *Of special interest to JDM fans; recommended.*

THE MYSTERY LOVER'S NEWSLETTER, \$2.00 by subscription (a year?); edited by Mrs. Lianne Carlin, P.O. Box 113, Melrose, Mass. 02176; 22 pp., mimeograph. *Recommended to mystery fans.*
Other Fanzines:

SPECULATION # 20-1, Jan. and Feb., 1969, respectively; 35¢ or 3/\$1; irregular,

from Peter R. Weston, 81 Trescott Rd., Birmingham 31, UNITED KINGDOM; 34 and 32 pp., respectively, mimeographed. The top fanzine oriented toward science fiction discussion coming out of Britain today.

LES SPINGE # 21, Mar., 1969; sent to those the editor wants to send it to; semi-annual, from Darroll Pardoe, 95 E. 12th Ave., Columbus, Ohio 43201; 24 pp., multilith. Formerly a British fanzine, but the editor is now in the United States. A rather idiosyncratic collection of fannishness and whimsy.

DOUBLE:BILL # 19, Jan., 1969; 60¢ or 2/\$1; irregular, from Bill Mallardi and Bill Bowers, 2345 Newton St., Akron, Ohio 44305; 54 pp., mimeographed. A general interest fanzine of medium quality.

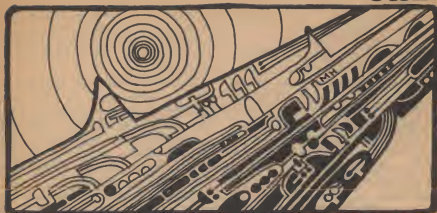
DYNATRON # 39, May, 1969; 25¢, no subscriptions; quarterly, from Roy Tackett, 915 Green Valley Rd. NW, Albuquerque, N.M. 87107; 24 pp., mimeographed. A usually-amusing personalzine.

NIMROD # 12, April, 1969; 50¢ or 5/\$2; bimonthly, from Dwain Kaiser, 390 N. Euclid, Upland, Calif. 91786, with co-editor Al Snider; 70 pp., mimeographed. A very Los Angeles-oriented general interest fanzine.

CROSSROADS! # 2, May, 1969; sent to those the editor wants to send it to; monthly, from Al Snider, 1021 Donna Beth, West Covina, Calif. 91790; 20 pp., spirit duplicated. A small, new fanzine with an active lettercolumn; it has the potential to go somewhere.

—John D. Berry

Send fanzines for review to John D. Berry, 35 Dusenberry Rd., Bronxville, N.Y., 10708



FUTURE in BOOKS

Lee Hoffman: **THE CAVES OF KARST**. Ballantine Books No. 01507, New York, 1969. 224 pages, paper, 75¢.

Lee Hoffman is the author of nine published western novels, including the Spur Award-winning *The Valdez Horses* (the Spur is the Western Writers of America's award, the equivalent of the SFWA's Nebula). Her only previously published science fiction was *Telepower*, a novella which occupied one half of a Belmont double-book. Despite the fact that Lee was one of the guiding lights in sf fandom in the early 1950's, her name is not well-known among professional sf writers. After *Karst* perhaps it will be.

The plot-line of the book is deceptively simple—it could have been yanked bodily from *Thrilling Wonder* of about 1951. Griffith is a "Breather", a man fitted with gills. He is also a diver on the world of Karst, one of a small guild of men who dive into the underwater

caves in search of valuable minerals and gems. There is a pending political clash between the Colonial Authority and the Divers' Guild. And Griffith has stumbled into a murder.

But these are only the bones of the book. What Lee Hoffman has done with them is perhaps deceptive but not at all simple. Writing in a spare, tough prose, she is the first woman sf writer to make valid use of the Chandler-Hammett school of writing since Leigh Brackett—with whom she will no doubt be compared. Like Miss Brackett, Miss Hoffman writes from outside any consideration of her own gender: she is writing a hard-nosed story about hard-nosed people, and she doesn't give you time to surface and recall that the author is a female.

Another comparison for the book might also be made—with Lester del Rey's savage *Police Your Planet*. Like del Rey, Lee Hoffman is writing about people on the underside of a colonial society, and

she spares you few details about the sort of life they live. Griffith's relationship with Irma, a prostitute, is a good example of this. Nobody is endowed with a heart of gold—the two of them are simply two lonely people who cling to each other in spasms without really understanding it themselves.

As the book develops, you begin to realize that this is not another tossed-off Miner-set-on-Mars story. The geological details are thorough and fascinating. The politics have that grimy feel of realism. The people are, for the most part, neither heroes nor villains, but individuals, each motivated to go in his own direction. It is the clash of these directions which gives the novel its impetus, and it is Griffith's bullheadedness which makes him its ultimate hero.

I've been hearing a lot lately about "old wave" novels and "new wave" novels, as though there was a line you could draw between them. *Karst* is an excellent refutation of that nonsense. It's "new wave" in its uncompromising stand in the delineation of its characters as *people*—and it's "old wave" in the basic adventure of its plot and the drive of Miss Hoffman's story-telling. It lies outside categories, and deserves reading from everyone.

Which is not to say the book lacks all flaws. I didn't like the abruptness of the conclusion, for example. But I'm willing to forgive a lot when a book is this well told—and I might add that if you find you like the book you might try her westerns too. They're also about people, and I've read them all, myself.

—Ted White

Norman Spinrad: *BUG JACK BARRON*. Avon Books N206, New York, 1969, paper, 95c.

Science fiction's answer to *Valley of the Dolls* has now made the scene, with all the pseudo-values of its mainstream counterpart unrevised and intact in a transposition to pseudo-sf. Spinrad has used sensationalism to expose sensationalism, which is not unlike using Good to fight Good—the battle doesn't make much sense and the result is negligible. If *Bug Jack Barron* wasn't so long I'd say it was merely written in a fit of pique against tradition, with a sharp eye on the cash value of present liberal literary attitudes in the 'mainstream'; and, in spite of the length, it still *reads* as if it were written that way. Spinrad hasn't found a new way to deliver the thematic content (power politics); he's simply uncovered a new audience for it, an audience likely to buy it out of curiosity and for its wide publicity, but one unlikely to buy the trend which may follow.

In a setting twenty years hence, "Bug Jack Barron" is a television show in which people from all over America are invited to call in on their vidphones and "bug" the host with their gripes and questions (although the public is not informed of the careful screening callers receive). The episodes concerning the show itself are strongly relevant to techniques that seem to be gaining momentum in society today, and their strength gives intermittent credence to the book's intentions.

Jack is "the outsider's insider" finding himself embroiled in a political struggle involving the incredibly wealthy Benedict Howards who is trying to retain a monopoly on freezing human beings for revival at some unspecified future date. The cost of this pipedream of immortality is \$50,000, a price out of reach of less affluent citizens yet popular enough

among the well-to-do to make Howards fight the encroaching free Public Freezer Policy with every underhanded tactic money can buy, including murder. The reader is soon made aware of how bugged Jack is becoming with these tangled threads of manipulation . . . he turns down the offer of felatio from his secretary-cum-girlfriend! It is at this point that the reader may also begin to suspect that Spinrad's motivations are as shallow and suspect as his characters'.

Howards wields his power to reunite Jack with his ex-wife, Sara, knowing full-well that the two are still deeply in love and using that love in an attempt by trickery to legally put them under his control. As we all know, Love is an unreliable and unruly force, and just because Jack accepts the next offer of felatio with unbridled glee doesn't mean that Howards' plans are lubricated well enough to slide right into home base. (I think the book has affected *my* writing style!) Jack ties in three murders with Howards and draws some simple conclusions—well, Spinrad had to keep them simple so as not to destroy the characterization he'd so carefully built—then goes on to discover that Howards has achieved immortality with a remarkable new technique . . . so new that Barre Lyndon used it years ago in *The Man in Half Moon Street*. Poor Sara gets cast in the 'best friend' role at this point—you know, the old self-sacrifice bit so that the hero can survive for a final triumphant battle with Evil—but even she gets the shaft as she hasn't the courage to do it without an LSD prod. Everything comes out groovy: Barron finds the courage that Sara lost, old Howards ends up in the loony bin, and that secretary-cum-girlfriend we met at the beginning gets another crack at Jack Barron who is now

immortal and has "all the time in the world."

Now I ask, does this sound like a story you'd want to read?

Spinrad creates his characters as if he was using an instruction sheet, creating habits and actions that, even at the time of set-up, are obvious ploys for later story use. His women especially are unappealing and unconvincing, and his style encompasses what seems to be distaste for (or mindlessly ignorant use of) females. But even in the dross, the author sometimes comes up with a line that imparts a real feel of realism—"Barron strained his mind trying to remember just exactly how his body had always felt, not something you're really aware of unless you're real tired or sick." (p. 254)—not because it is a particularly fine point of characterization (or even good English!) but because it imparts an attitude with which any person will be familiar. Added together, however, these moments form such a small percentage of the total wordage that one is irresistably tempted to consider the book *per se* as too close to worthless for fine distinctions. Barron himself is an ineptly-created and ludicrously inconsistent character; simple and obvious facts confuse him (such as when he discovers the means of gaining immortality) yet he is supposedly perceptive, especially to the personalities of others, and makes clever remarks about the triteness of others' conversations (often a seeming attempt to make the reader disregard some very weary dialogue). When the dialogue remains short and simple, it is often followed by incredibly long and even more incredibly pretentious internal monologues crammed in with spit and grease and very little else.

As for the much-publicized sexual epi-

sodes, I've read cheap hackwork porno novels which make cunnilingus and felatio (and just plain, ordinary sex) far more exciting with simple straightforward prose than all Spinrad's "asymptotic rhythm" can do.

I'm not impressed with Spinrad's attempt to bridge the gap between sf and the mainstream, especially as he's so determined to keep a foot on each shore even when he's lost his balance and has wet his crotch in the waters between. Robert Silverberg is much closer to traveling both lands (see *The Masks of Time*), but of course he's had more years in which to perfect his technique. Give Spinrad another ten years and *maybe* he can do it—place your bets at the second window to your left—if he can ever live down this attempt, that is.

—Richard Delap

A. E. Van Vogt: *THE FAR-OUT WORLDS OF A.E. VAN VOGT*. Ace Books No. H-92, New York, 1968. 223 pages, paper, 60¢.

Several years ago Ace issued *The Twisted Men*, a collection of three long novelettes by Van Vogt, which makes at least half of the cover blurb on this book "... his first new collection in 15 years" an obvious misstatement. The other half—"The most imaginative science fiction master of them all..."—is perhaps open to individual interpretation, but I for one would not publicly

agree with such sentiment.

Considering the large number of pages, the almost too reasonable cover price, and the gushing cover blurbs, I approached the book with a sneaking suspicion that Ace was offering a terrific bargain or that the book's contents warranted no more than 60¢.

Out of twelve stories less than half are passable and only one better than that. Draw your own conclusions.

The best, "The First Martian," has some of the choicest characterizations of the author's career, a runaway train on the Martian desert, and an interesting pivot of ecological adaptation. It's simple, slick, suspenseful and a good bit of fun.

But all in all, there are just too many stories here that are desperately over-written, while the author seems to assume the reader will take for granted anything dished out sans explanation or relevance. At best, he can gallop a story past a reader before the holes can be spotted; at worst, he never gets off the starting line.

—Richard Delap

Richard Delap is a name new to these pages, but will be contributing regularly to future columns of The Future in Books. These first two reviews are reprinted from Science Fiction Review, and are copyright 1969 by Richard E. Geis. Future reviews will be original to this column.

(Continued from page 87)

seen it too, perhaps, buried in cold electrical memory. Did he sense that these children-ancestors were as much a part of nature as the trees, the wind?

Let them go. History had almost finished its work, nearly snuffed them out.

But at least they could go with grace, alone, unwatched. Any wild thing could ask that much of the world.

After a long time Livingstone went back inside, leaving the silence to itself.

—Greg Benford



...Or So You Say

Letters intended for publication should be addressed to *Or So You Say*, c/o P.O. Box 73, Brooklyn, N.Y., 11232.

Dear Mr. Whit,

Thank you for the publication of my story in the September issue and my best to Mr. Cahen and Larry Hee, who I'm sure are nice fellows. One slight correction, however: My name is Hensley, not Henley. I haven't used the latter name since I used to write poetry ("Invictus").

I will forgive you for you are not alone in your error. I sold a story to *Dapper* once and they spelled it Hemsley, which is an alias I use only when I'm forging checks around Milford, Pennsylvania. That was a story I collaborated on with Alex Pension. Harlan Ellising and I did one once for *Swank* and they left my name off the contents page altogether, which showed excellent taste on their part. Even fanzine editors have had their innings. I recently did a scholarly

article on Bob (Walston) Tooker for Ben Salon's fanzine and he managed to mess up my last name in similar fashion to your own error.

I just wanted to set the record straight as I know my myriads of fans have complained. I, of course, never make mistakes.

Yours for accuracy and like that . . .

Joe L. Hensley

Madison, Indiana, 47250

I'm really sorry about that, Joel, and I think I can promise you it won't happen again soon. —TW

Dear Editor:

When I last wrote to your magazine thirty-six years ago, I asked you for three improvements:

- 1) Trimmed edges,
- 2) An end to covers with red and yellow skies,
- 3) A magazine bound without staples.

I am pleased to see you have finally provided the first two improvements. When may I expect the third?

Bob Tucker

Box 506

Heyworth, Illinois, 61745

I'm sorry you felt the need to bring that up, Bob. It's been a sore point with us all, you know. And the last time you mentioned it, all fandom was plunged into war. Has age added nothing to your store of wisdom? —TW

Dear Ted:

Best wishes on your editorship of AMAZING and FANTASTIC and I hope that they be long ones. I'll have to give you an A-plus in effort for trying to revive AMAZING. If you keep it up, you will undoubtedly succeed.

A big change has started with the July and September AMAZINGs. I was floored when I opened the July issue and found an intelligent editorial, lots of letters, and "lo and behold!"—*The Clubhouse* revived! It's been a great improvement, and I hope it keeps up.

Here are some comments on the stories:

July—"Hue and Cry" was all right, even though the author revealed the 'surprise ending' halfway through the story. (Forgive me if I'm wrong, but that ending was supposed to be a surprise, wasn't it?)

"Only Yesterday" was superb, and again I only hope that your writing remains of this calibre. (By the way, any more Qar books as mentioned in *Amra* Vol. 2, # 46? I really enjoyed *Phoenix Prime* and *The Sorceress of Qar* and want you to continue the series.) (Some readers may recall the genesis of *Phoenix Prime* in "Phoenix" in the February, 1963 issue of this magazine; it was my first published sf story. The series that

grew out of it for Lancer Books has been allowed to go out of print by the publisher after disappointingly low reported sales and a surprisingly short on-sale period. The third book, *Quest of the Wolf*, has as a result also been allowed to languish in an uncompleted state. Who knows; I might finish it one of these days for publication here or in FANTASTIC, if there is any real demand on your part. —TW)

"Up The Line" is fantastic and a Hugo Winner for sure.

September—"The Edge of the Rose" was very good and held my interest.

I haven't had time to start part 2 of "Up The Line" but it looks as good as part 1.

Harlan Ellison's story was really great and an excellent last-minute choice. You couldn't have done better. (*When I said it was a last-minute inclusion, I didn't mean that we grabbed it because we had nothing else to use; I meant simply that at the last minute Harlan called me up, said, "Hey Ted, I've got this great story for you," and when I read it I agreed and we put it right into print. Sometimes we work too close to our deadlines—this issue was put to bed rather late—but quite often this does allow us to slip in a last-minute goody like Harlan's story.* —TW)

I was glad to see the number of reprints cut down for this issue. Perhaps you can feature only one an issue and make that one a little-reprinted classic. (*How'd you guess?* —TW)

One criticism of the September issue though—*The Clubhouse*. I have recently become involved with a fanzine called RETURN TO WONDER, and just saw my first time in print within its pages. Mr. Taylor, the publisher, said he was sending a copy to Mr. Berry for review

in *The Clubhouse*, so naturally I was excited at the prospect of hearing about RTW in a prozine.

When the September AMAZING finally came out, I immediately bought it and rushed home to read it. I was extremely disappointed to see that RTW was not included in *The Clubhouse* . . . but! . . . that's not my reason for writing this letter. I realize that Mr. Berry might have received so many zines, that he chose a random sampling to review, and RTW had the luck of not being picked. This is what irks me: Six fanzines that were reviewed in the July issue were reviewed in the September issue again. They were the same mags, only each issue of AMAZING reviewed a different issue of the six. The six are: SCIENCE FICTION REVIEW, WARHOON, QUIP, TANSTAAFL, CRY and HAVERINGS. (What is Mr. Berry going to do—keep on reviewing each issue of these six as they come out, also review his favorites, ignore the rest whose editors and contributors are probably waiting to hear something about their mags in AMAZING?) Mr. Berry also reviewed two or three of these six *extensively* in both issues! *Fandora's Box* in IMAGINATION (in the 1950's — TW) gave at least a small paragraph of comment on each zine outside of the address and price. They were also reviewed by a number rating system. Mr. Berry's mini-reviews at the end of his column are 80% address and price with an average of one to two sentences of comment.

I feel that this is definitely unfair in the respect that the space used for the above-mentioned six could have gone to cover another previously unreviewed six that had merit. (I'm not saying that RTW deserves merit for its struggles and is excellent and should be reviewed—

even though I do feel that way.) I feel that the space could have been used for other fanzines, which would probably have helped them by way of circulation, no matter how small an increase. I hope that, in the future, Mr. Berry will be fair in the respect that he will review each fanzine only *once*, regardless of how much he likes it or of its quality.

Steve Riley

Framingham, Mass., 01701

I'm afraid you misunderstand somewhat the function of The Clubhouse. The problem is to balance honest criticism with encouragement, to give both fan and non-fan readers of this magazine a column worth reading, and at the same time to give the fanzine editor an appropriate review. It isn't easy. I am to blame for the format of the column: I told John D. Berry to pick out a finite number of fanzines for reviews of some length (the length to be decided by how much he had to say about an issue), and to mention as many others as possible at the end of the column under "Other Fanzines". The latter listings are not "reviews" and the sentence or two of commentary was designed solely to give a hint as to their content. In writing the early instalments of the column, John reviewed fanzines he himself received as a fan. Because John is a college student spending about nine months of the year on the west coast, there is an additional time-lag in fanzines sent to him via this magazine and forwarded to him. This is the sole reason RETURN TO WONDER was not and is not listed as yet. As more and more fanzines come in to The Clubhouse, the listing of fanzines becomes more complete—all will be listed, if not reviewed. (As of this issue we've establish-

ed a better address for forwarding the fanzines; you'll find it at the end of the column.)

John D. Berry adds:

"I review each issue those fanzines which strike me as being of the most interest and about which I have something to say. The rest—including many fine fanzines that for one reason or another don't spark any lengthy commentaries—are listed at the end with a brief comment that is meant to give the reader at least some idea of what the fanzine is. Already some fanzine editors have taken these one-line comments as "reviews," which they were never meant to be. As a result of this misunderstanding, with the next issue I will drop these comments entirely, except where I feel there is something that needs explaining. As for the reviews, I am not going to avoid reviewing a fanzine again until all the others have had their turn; this doesn't strike me as very fair. If one fanzine has three good issues worth reviewing, I'll review it three times in a row. But I have taken your comments to heart and I'll try to give the reviews more diversity in the future. —jdb"

I might add that increased circulation is not an unalloyed blessing for some fanzine editors—each of whom must mimeograph, collate and mail out his fanzine by hand—and at least one major fanzine editor has threatened to lynch us if we review his fanzine. —TW

Dear Mr. White:

I simply cannot resist commenting on the September issue of AMAZING STORIES; specifically, the book reviews by James Blish and Norman Spinrad on John Brunner's *Stand on Zanzibar*.

I can't help but wonder if the reviews

were intended to form the thoughts that I have had upon reading them. Blish disliked the book, yet his review is so decidedly vague and unsatisfying that I might have been tempted to give the book a once-over had I not already read (and disliked) it. On the other hand, Spinrad praises the book's construction, likening the author to both a film editor and God (analogies as misleading and incorrect as any I have ever seen), and proceeds to call the book both "brilliant" and "dangerous". As much as I disagree with Mr. Spinrad, his review is the one that comes across most strongly, giving the impression that the reviewer knows what he's talking about (which he doesn't). But, Spinrad is right in one thing—the book will definitely lead to imitations; as Brunner has already proven with his ghastly "half-novel," *The Jagged Orbit*.

Anyway, I am enjoying the new book review column very much, as well as Mr. Berry's column on fanzines, and I hope the revived interest in fandom will spark added interest in the magazines you now edit.

Richard Delap

532 S. Market

Wichita, Kansas, 67202

James Blish is now living in England, and his reviews (along with those of his alter-ego, William Atheling, Jr.) will be appearing less frequently in these pages, I regret to say. It has been my policy to present honestly-written reviews in the book review column, whether or not I agree with them, or, indeed, they agree with each other. I think that the honest difference of opinion between Blish and Spinrad—as well as yourself—simply underlines a basic truth: there is no single "correct" opinion about a book, or indeed any created object. With-

in broad limits we can agree—the real bombs are easily sorted from the successes—but tastes differ so markedly, and even those areas in which we apply our tastes, that any pretense to a single “right” review is deceitful. I have not myself agreed with your reviews in the past, but I’m pleased to welcome you to our reviewing staff with this issue. It is quite likely that future issues will find more dissenting reviews juxtaposed in The Future in Books. I think in the long run this will be of greater benefit to our readers and the field as a whole than are those “omniscient” columns of some other reviewers. —TW

Dear Mr. White:

I couldn’t agree more with your July editorial in AMAZING. The “outside” world is becoming more aware of science fiction (good and bad) which is (I think) a Good Thing, but it sometimes takes the wrong approach to it, and while (usually) meaning well, ends up on a track totally opposite to the reality; this is Not So Good. (The use of the word “sci-fi” is a very, very, very minor manifestation of this trend.) *(I disagree; I think it is symptomatic. “Sci-fi” was coined during the height of the “hi-fi” craze when anything from dishpans to cap-pistols were dubbed “hi-fi”, and high-fidelity recording was lost in the shuffle. “Sci-fi” gave the mass media a shorthand phrase of about the same substance and meaning, and I’m afraid those who have used it have been cynically aware of its fraudulent connotations—if the contempt with which they apply it is any indication. These days “sci-fi” stands for the know-nothing attitude towards science fiction. —TW)*

What with mature (and well promoted) films, aware non-sf critics, and “science

catching up with science fiction” (a phrase that I particularly loathe), Gernsback’s child has finally come of age as far as strangers to the field are concerned. (Of course we all know it has been for years.)

Robert Silverberg’s serial is, as the man said, brilliant. As for the short stories being published, they stand next to the longer pieces in quality. I liked the frankness and honesty expressed in publishing your own story; why shouldn’t editors publish their own fiction more often—they presumably have good taste. Anyway, “Only Yesterday” was quite wonderful.

Mark Mumper
1227 Laurel St.
Santa Cruz, California

Dear Mr. White,

In regards to the having of a science column, I can only say that I’m 100% in favor of the idea. I realize that AMAZING is a science fiction magazine, but I see nothing wrong with a fact article in it.

Now that “Up The Line” is over, I hope that I’ve seen the last of Robert Silverberg in your magazine. There are a lot better authors (if Silverberg can be called an author) that can write better stories. (Mr. Collinson, meet Mr. Mumper. —TW)

Why have movie reviews on movies that aren’t even science fiction? Don’t get me wrong, I’m in favor of movie reviews, but since AMAZING is a science fiction magazine, why not reviews of science fiction movies? *(Funny, I thought they were . . . However, we have dropped the movie reviews for the present. —TW)*

I’ve noticed that slowly the number of reprints of old stories are getting fewer with each issue. I hope you don’t

eliminate them completely. I enjoy the old stories as much as the new ones.

J. Collinson

9707, 79th Avenue

Edmonton 63, Alberta, Canada

Dear Mr. White,

Early this week I saw the July AMAZING and was attracted by Robert Silverberg's name (I enjoyed his "Hawksbill Station" immensely). (*Have you met Mr. Collinson?* -TW) The prospect of having to buy a second issue almost caused me to put down the issue until I became aware of the many fan features in the magazine. Then again, I saw your name listed as managing editor. Remembering you were a well-known science fiction fan and also recalling your Bantam Captain America novel (*The Great Gold Steal*, which was interesting pulp fiction reading and which I enjoyed almost as much as Doc Savage), I decided to go ahead and buy the July AMAZING. I was not disappointed, but amazed at the quality contained within. For the most part the issue was well-done, although there were a few flaws here and there.

To begin with, the cover of the July issue was not conducive to one's buying the magazine. I feel that a cover should be one of three things. It should be beautiful or exciting or mysterious. This cover failed in all three categories. Not knowing your financial structure, this suggestion may seem out of line, but why not get some top-notch painters for AMAZING? Maybe even some fan artists if their work is up to professional standards. (*A good point; the problem is financial, and it's one we're working on. Of necessity, this magazine operates on a low budget. I am looking for fan artists of professional quality, and shall*

make a point of it at the Fan Art Show at the World SF Convention this Labor Day weekend. -TW)

The editorial is one of the best I have ever read in a science fiction magazine. I feel, and I think from your own editorial that you agree with me here, that an editorial should enable the reader to learn something about what makes the editor tick. Your editorial fulfilled this. From it, I think I could safely surmise that you have a true love for science fiction, that your heart leapt the way mine did on hearing the Astronauts' Christmas message as they circled the moon, and that you would feel the same thrill I recently felt when viewing the motion picture adaptation of Wells' "Shape of Things to Come".

I also see that you have a certain contempt for the term "sci-fi." I really can't see anything wrong with that term and it might be interesting to hear your reasons for disliking it in a future editorial. (*Would you settle for my comments on the phrase to Mark Mumper?* -TW)

"Up The Line" was an excellent story (although perhaps I'm being premature as I haven't read the second part yet), and I feel that the whole novel will top even the great "Hawksbill Station."

Your own story, "Only Yesterday," was basically good, but I think you may have written it too fast and did not plot it out as carefully as you should have. The first pages seem to drag and it is not until "Bob" starts making predictions that the tempo of the story picks up. The concluding paragraphs are very well done. I hope you'll be doing more shorts in the future. (*I have. It's just that my agent insists on sending them to PLAYBOY first.* . . . -TW)

Bob Shaw's "Hue and Cry" was hilarious. I think I enjoy humorous science

fiction more than any other type. It really takes an imagination to come up with a story based on the old axiom, "Blue for boys and pink for girls." I hope to see many more humorous stories in AMAZING in the future. With so many writers seemingly concerned with nothing but doom for the entire human race, these lighter stories are a God-send.

The Clubhouse is possibly the best part of your magazine. It is so refreshing to see a magazine do more than simply recognize its fan following and setting about to please this following in such a positive manner. *(Actually, The Clubhouse is not intended to be of exclusive use for, or solely interesting to fans. Active sf fandom represents only around 1/30th of our readership at best. The Clubhouse exists to acquaint our other readers with fandom, and to develop new lines of communication which I hope will be of value to everyone. —TW)*

I had always been a bit wary about joining science fiction fandom. I had only seen a few sf fanzines and these seemed to me to be confusing, as if the writers were putting down words for the sake of putting down words. I was also held back by a feeling that sf fandom had no place for the younger reader (17) in its ranks. *(I became an active sf fan when I was thirteen; at that time one Big Name Fan was my own age, and another was just turned eighteen. Age, I think, carries less weight in fandom than almost anywhere else. Ability is what counts. —TW)*

This column has destroyed my first impression of science fiction fanzines and I will probably purchase more of them in the future. I'll probably also try to write for some of them as I have for comics fanzines. By all means, continue *The Clubhouse* and you've got me for a steady reader.

Another "plus" in the July AMAZING was the letter column. I didn't believe it! Seven entire pages of letters! Great! I've always believed that every magazine needs a letter column and the longer the column, the better the column in most cases. Keep the column long at all costs.

Tony Isabella
11203 Peony Avenue
Cleveland, Ohio, 44111

Dear Mr. White:

May I say this in response to Mr. Stover's article:

I am not interested in a new mythology for technology, but a new use for it. Most things based on myths are rapidly dying out.

What I want is a technology that will rid the world of its problems.

I want to live on a world where I can breathe in oxygen, instead of carbon monoxide. I want to be able to see the sky and the stars, not smog. I want to be able to cross a city street without taking my life into my own hands.

I don't want eight billion neighbors. What does everyone have against clear streams, virgin forest, golden beaches and the ocean's white surf?

If people are getting sick of reading about oil slicks and conservation problems, why aren't they pressuring our government to do something about it?

If by the time I grow up (I'm 13), I find it's too late for what I want, I might as well settle on Mars. Desert or no desert, I'd still have room to think. So the scarcity of oxygen could kill me instantly if my air line is severed; that putrid smog just might take ten or fifteen years longer. Despite the great temperature extremes, I could still look at the sky and see the stars.

Neither would my offspring have to fear the prospects of having some fanatic

press a button and start a nuclear disaster. (I hope.)

'Tis better to be a struggling Marsman than a dead Terran.

Technology isn't the source of our troubles; man is. He made this mess. He can fix it if he wants to.

Technology is neutral, being neither good nor evil. Only men know the difference and we're the ones who control it.

I don't want a new mythology. I outgrew fairy tales at age four. I only want an intelligent use of our creations. Am I asking too much?

Seth L. Brody
126 Walt Whitman Blvd.
Cherry Hill, N.J., 08034

Considering the present state of Man's evolution, I'm afraid my cynical answer would be, "Yes." But keep right on asking, anyway. It's only by demanding more of ourselves than we think we can deliver that we ever make any real progress. —TW

Dear Mr. White,

For several years (since June, 1965) AMAZING has not had an editor. I don't mean someone who collects the stories and writes editorials only, but someone who *cares* about the magazine and seeks to improve it, drenching it in his personality (and thus distinguishing it from a periodical anthology).

Now it looks like we have a real editor, as opposed to all those bored

(Continued from page 97)

the same grass that had hidden him two nights before. Above him was the cut bank, the fire circle, the sleepers, and two drowsy children on guard. The grass surrounding him nodded and lied again, as grass will. Then Arpad slipped up the bank, into the circle and was one more quiet sleeper, quickly, silently, cleanly. No one saw him move at all.

professionals who turned up before.

Not only has the quality improved but the old features are back. A great service has been rendered to fandom (which supported this magazine even at the few times when it didn't deserve it—like when Ray Palmer was running the thing) by the fanzine reviews and the lettercol. The lines of communication have been broken for too long and many people never became fans because they did not know of the existence of fandom. Thank you.

Darrell Schweitzer
113 Deepdale Rd.
Strafford, Pa., 19087

Letters are still pouring in daily in response to the July and September issues of AMAZING, and the response is, although far from uniform on many topics, overwhelmingly enthusiastic about the recent changes we've made. My apologies to all who were squeezed out this time; some of your letters will be included in our letter column next issue, which, hopefully, will be prepared somewhat less hastily and more in advance of the deadlines. (I'm not going to guarantee many letters of comment on this issue will appear next issue; that's cutting it a bit too fine for a regular thing.) My thanks to you all for your support; I'll be looking forward to your comments on this issue. —Ted White

He relaxed, and this time he hoped Churchward would be embarrassed. In any case, he felt good. He had decided to deal with one set of problems at a time, and this had been his first. Tomorrow would bring others, but he would cope with each in its turn. First things first.

He was tired, and he fell asleep quickly.

—Alexei Panshin

SARKER'S JOKE BOX

by **RAYMOND Z. GALLUN**

**A little patient sweating inside his shell and
Sarker could laugh at the law. He would be free.**

CLAY SARKER had me covered with his ugly heat-pistol. Kotah, the little Venusian scientist he'd held captive for so long, crouched helplessly chained, there, in one corner of Sarker's cavernous mountain hideout. My life wasn't worth the cinders in a discarded rocket-tube. But I wasn't scared.

No, I'm not such a brave space-copper at all. I was just too damnably and feverishly triumphant to feel fear.

You see it was I, Slade Herrodd, who'd just found Sarker's cave. As-

signed to the ground-scouting detail, I'd been slinking through those dark, wooded uplands, looking for some sign of him. Just a couple of minutes ago, I'd glimpsed a tiny gleam of light in the gloom of three a. m. It had betrayed Sarker's lair, blasted out of the solid rock.

Rashly I'd hoped to sneak up on him, and get the drop on him first—being twenty-two, personal glory appeals to me. But Sarker, that black-souled demon of space, guilty of most every crime listed in the code-books of nine

A Classic Reprint from AMAZING STORIES



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planets, possessed one of the fastest pistol-draws in the Solar System. So he had me there, now, as helpless as a fly on a pin.

It didn't make so much difference, though, as far as the success of law and order went. Sarker's goose was still cooked. You see, police tactics nowadays are perfectly coordinated. They work like the finest instrument ever made. There are space-patrols, each unit assigned to its special zone. There are atmospheric rocket-planes, and ground troopers. All in communication with one another, by radio.

We'd rounded up Sarker's gang, and chased Sarker himself out of his last stronghold in the Asteroid Belt. We'd herded him toward Earth, knowing every second where he was; for the rockets of his ship, burning their atomic fuels, had set up a certain pattern of radioactive disturbances in the ether, just as every set of rockets does. Since no set can be made exactly the same as another in its metallic crystallizations, even in assembly-line production, there is always a faint difference that identifies each ship. As if they had fingerprints. Delicate instruments, and direction and distance finders, do the trick.

We'd herded Clay Sarker to Earth, and to the Ozarks. There we'd lost him in a dense fog that he'd somehow contrived to create artificially, just as his rockets had been shut off for a landing, and could no longer guide us. Oh, he had plenty of science himself to use against us—as long as Kotah was his captive and slave. Don't doubt that!

But now, after months of searching this wooded wilderness, we had him completely cornered at last. You see, before I'd stuck my nose recklessly into mortal danger, I'd sent out a call with the little radio at my belt, telling my pals exactly where Sarker's den, that

I'd spotted, was.

I FACED him across that glassy, rock-walled cavern. Well, Sarker," I challenged, feeling that I was done for anyway, "Why don't you blast me down, while you've still got the chance? Listen! You can hear the police rocket-planes coming now! I gave them your exact location. All the trickery in the universe can't save you. In two minutes you'll be a captive. In a week you'll be kicking your life out at the end of a rope. Go on and fire!"

No wonder I wasn't scared as I hissed my defiance at that ugly, scarred, thin-lipped face, with its perverted intellectual cast. Sarker was crouching like a cornered reptile against the wall, his knuckles white around the butt of his heat-weapon, that he held trained straight at my heart. In the eerie, bluish glow of the illuminators he'd strung overhead here in his apparatus-cluttered cavern, he looked like the trapped spirit of every evil he and his cutthroats had committed, from the mere looting of ships in space and the murder of their crews, to the destruction of whole cities that had failed to buy him off under the threat of bombing and heat-blasting from the void.

It was good to be part of his downfall. Even death didn't seem such an awful price to pay, as those police craft roared nearer.

But the outlaw took his time before he spoke. "Okay, copper," he said at last. "*Maybe* you win. I know I'm in a spot. But of course we haven't wasted the time we've spent in hiding here in the Ozarks. Have we, Kotah?" For a second a mocking, vicious smile lingered on Sarker's cruel lips, as he glanced toward the captive Venusian scientist.

Kotah only whimpered inarticulately, gazing at me with a tortured pleading

in his great, limpid eyes. Born in one of the swamp cities of Venus, this tiny pale-skinned man with the marks of many beatings showing on his torso above his tattered loincloth, was still one of the most brilliant individuals in the explored void. But it was almost a year, now, since Sarker's crowd had kidnaped him from an Earth-Mars liner. A gentle little member of a gentle, birdlike race, he'd been forced to work and invent for his devilish overlord.

Suddenly I felt the danger of the unknown here in this weird cave. Finally I really noticed the strange vats and grids and other nameless, wonderful apparati before me. And there were greyish metal plates along the walls. These must be the screens, the shields that had kept the etheric disturbances of the subatomic processes which must have been going on here, from being picked up by our detectors. Without them, we would have found Sarker promptly.

Yes, the danger of the unknown. Kotah's genius, plus Sarker's will and Sarker's whip. What had been the result? The growl of nearing police-rockets was thunderous now, and reassuring. But maybe we wouldn't win after all! Maybe Sarker had a secret-weapon—a means of killing my friends, and a means of escape!

THE outlaw edged across the room, still keeping his heat-pistol fixed on me. He approached a simple object, which stood in an odd, tremendously massive frame. It was an egg-shaped shell, a little taller than a man. It's dazzling lustre was more than mirror-like. A small slide-door was open in its flank. Within I could see regulation air-purifier packs, familiar boxes of concentrated rations, and a few books. That was all.

Sarker lifted his feet backwards, one and then the other, through the opening in that huge, shiny capsule. He entered the latter this way so that he could keep facing me with his pistol. At last he drew his whole body inside the shell. He'd disarmed me before, of course; but he knew that I'd try to jump him anyhow, if he gave me half a chance.

Next, with only his face, and the fist which held the weapon, showing, he fired. Not at me, but at the maze of apparatus in the cave. In a moment, under that inconceivable blast of heat, all their mighty secrets were hidden, in meaningless pools and lumps of molten metal, wreathed with smoke.

Kotah was caught in the path of the pistol, and burned in two.

Sarker made a slight, mocking gesture toward me with his other hand. It was like a wave of farewell. In his fingers he clutched a small object, the like of which I'd never seen before, though it resembled a familiar kind of cutting tool.

"So long, copper," he said quietly. "No, I'm not going to run away. This shell isn't a space ship or time-machine. And unfortunately I haven't anything to wipe out the Interplanetary Police Force with. From now on, just as you said, I'm in the hands of the law. Though maybe somebody's going to laugh loud and long—in two months. . . ."

I didn't know, then, what he was talking about. And I couldn't understand either why that fiend, Sarker, had let me live. He managed a cryptic grin. Then the door began to slide shut, with an eerie sort of heavy slowness, even though it was so small.

JUST as it closed tight, the rocket-glare of the first police ships, landing just outside, stabbed brilliantly into the cave. Trees, rough ground, and

other obstructions, don't mean much these days, for air and space craft descend gradually and almost vertically, supported by their howling underjets.

Panting with excitement, I leaped across the chamber toward what was left of Kotah. Though frail in appearance, cold-blooded Venusians have a turtle-like vitality. Though he was halved by a heat-beam, the upper part of Kotah was still a little bit alive, believe it or not. Sarker must have figured that he'd killed him instantly, shutting his mouth against tale-telling forever. But he hadn't—quite.

Kotah's great eyes were glazing fast, as I bent over him. The last dregs of breath sighed between his teeth. But somehow—who knows how—he found the will and the strength to speak, and from the shadows of his death-blurred mind, the intelligence to direct his words:

"Bad. . . . The end. . . . You see. . . . Clay Sarker. . . ."

A few broken, English words, twittered like the notes of a tired bird. Nothing more. The tiny wizard, from an always mystic Sunward world, stiffened and departed, the remainder of his message halted forever on his elfin lips.

A second later I was surrounded by a score of Interplanetary Police. The lights had gone out with the destruction of the machinery here, but molten metal wreckage radiated adequate illumination. Even the ugly heat-guns held by those green-clad confreres of mine, looked eager to help make one of the worst devils of all history a harmless prisoner.

Commander George Harlow pushed past the other men and faced me, his sharp beard bristling. "Where is he, Herrodd?" he demanded grimly. "You radioed that Sarker was here, but I

don't see him."

I pointed across the cave to that ovaform shell, which reflected with such strange brilliance the fading glow of Kotah's fused and ruined equipment.

"Inside that thing, sir," I said as calmly as I could.

COMMANDER HARLOW is more than sixty, shrewd, good-natured, hard-bitten; but like most men of his kind, slightly literal in the way he interprets what he observes. But he was keen enough to sense the suspicions and confusions in my tone. His heavy brows went together in a puzzled frown as he approached the gleaming shell, examining it warily.

But its gigantic steel supports were firmly imbedded in the stone floor. Plainly it wasn't likely to vanish before our eyes.

"So Sarker's crawled into a hole at last, eh?" Harlow chuckled. "Well, that's almost pathetic—something like trying to elude us by hiding under the bed. A final, feeble gesture. The metal this shell is made of is new to me, but I don't care how tough and refractory it is! Don't you worry, Herrodd. We'll burn Sarker out of there in a hurry!"

Our chief swung around then, like a big dynamic grizzly bear, and growled a couple of swift orders: "Lee and Edwards, you pick up what's left of Kotah, the Venusian. And handle him with respect—that's the most we can do for the poor little guy, now. Sparks! You go and radio Headquarters in Chicago. Tell them what everybody in the world wants to hear—that we've caught Clay Sarker at last! The rest of you men stand by while I work on this shell with a heat-gun!"

There was a brisk, burst of "Yes, sirs," followed by quick assured obedience. I suppose the efficiency of the Interplanetary Police was very appar-

ent, then. But I had seen more than the other fellows present, and in consequence I had certain doubtful suspicions. I wanted to warn Harlow about them; but I didn't know quite what to say, and I couldn't see any difference in outcome anyway, even if I spoke.

Harlow unholstered his heat-pistol. He turned an adjustment screw on it, so that the beam of energy it emitted would be needle-thin—a tremendously concentrated cutting point. For use as a tool, the weapon was fitted with a small collapsible shield, to protect the operator's eyes, face, and body.

Our chief chose the door of Sarker's glittering refuge as his point of attack. Maybe it looked comparatively fragile to him.

But immediately things didn't go so well. That thread of speeding heat-waves, which would have cut the toughest steel as though it were so much air, broke into a reflected sunburst against that strangely burnished metal, when it should have gouged deeply, at once. But for the shield on the heat-gun, Harlow, and many of us others, would have been instantly burned to cinders by those bouncing, scattering rays. As it was, the refractory substance of the little screen whitened with heat, and droplets of molten stone fell from the cavern's ceiling.

HARLOW'S face grew grimmer with consternation. The rest of us watched, breathless and silent, while he readjusted the weapon again, reducing its energy output somewhat. Then, gingerly, and with more caution than before, he held that needle of energy to the door of Sarker's shell again. For a sweltering five minutes, he kept it fixed on the same spot. Then he shut the weapon off, to examine the results of his efforts.

Well, we all remained speechless. It was all too plain that that shining surface had resisted completely the most powerful cutting force that we knew anything about.

There wasn't the slightest trace of a mark on that nameless, mirror-like substance, where the heat-gun had gnawed so industriously. There was not even a red-hot area, as there surely should have been. Sarker's shell had refused to absorb any of the weapon's energy. Reflection had been all but a hundred percent.

Almost lugubrious with frustration and disbelief, Harlow stepped back. But at last he grinned a little wearily, showing that he's a good sport. Next he picked up a long rib of steel—an unfused fragment of the marvelous maze of apparatus that Sarker had wrecked here.

Thus armed, our chief brough all of his considerable strength into play, thrusting that heavy piece of metal against the door of the outlaw's refuge, like a battering ram.

In one way, the result wasn't spectacular. There was a long, dull ringing, like that of a tuning fork. The queer part was that the sound seemed to come *entirely* from that piece of a girder in Harlow's grasp. That huge, weird capsule against which it was hurled, didn't even give back the ghost of a thud, from the blow! Not, of course, because it was soft like a pillow, but for an almost unbelievable opposite reason!

"Good glory!" Harlow croaked, not sounding like his usual assured self. "This stuff's so damned hard and rigid, that it can't even vibrate enough to produce audible sonic waves!"

But he tried ramming the entrance of that big egg-shaped thing again, and after he got tired, as many of us could clutch the bar at once, gave him a hand.

The futility of our added strength, though, was entirely beyond denial. One man or a dozen, it made not the slightest difference.

After a few minutes we all stood there panting and baffled. Several of us, including myself, bent down to examine that small sliding door—mostly for dents which we knew we wouldn't find.

Presently, however, we noticed something else. That little panel, as I knew, had originally been designed to move—in opening and closing—into and out of a slot hidden in the ovoid's curved flanks. But now something had changed. There was no crevice anymore, between the panel itself and the overlapping door-frame. At first I couldn't understand, but finally I got it.

"Our luck is still bad, Chief," I said as calmly as I could. "Sarker didn't feel satisfied with just locking us outside of his refuge. He must have arranged some kind of metallic cement in the slide-track of this entrance port. The cement seems to have solidified, now. A sort of new heatless welding, doubtless designed by Kotah. . . ."

HARLOW was chewing his lips in a passion of bafflement, as he bent down to look, too. Yet though he may be a little premature in his judgments sometimes, he isn't the kind of stuffed shirt that gets sore when somebody else points out facts to him. Commander Harlow depends on bulldog grit—not bluff.

"Then the door," he said slowly, "is probably just as firm as the rest of this thing. The whole business is joined together, now, in one continuous piece—solid as hell. I guess the stuff this turtle-skin of Sarker's is made of, could only be one thing, huh?"

Yep, we Interplanetary Police have to study our lessons when we go to

school. Quite often, in the whirl of a battle or a capture, we forget what we've learned; but when we're stumped and stalemated, most of it comes back.

Sure. We all knew what this substance—or at least the basic part of it, that gave it its heroic properties—was, now. There was only one kind of material that could be that tough, and that resistant to all energy.

Lieutenant Norson, and Hayes and Jax, a couple of young fellows like myself, croaked out the single word in a kind of straggling chorus: "Neutronium!"

Uttering a term like that, to us—to whom scientific wonders aren't such mysteries—is like uttering the name of some lost and all-powerful legend, among savages. For centuries men have known what neutronium is—in theory. Not in a class with other elements, at all. Not a material made of atoms, around whose nuclei orbital electrons whirl in empty space as wide, relatively, as the orbits of the planets. But a substance composed of neutrons—each an electron and proton combined, to form a compact, spaceless unit of matter and mass! And each neutron touching its immediate companions. Rigid, closed files. Not a scattered skirmish line, but an impenetrable, microcosmic phalanx! Substance compressed to the ultimate of possibility, in density and strength!*

Frank Jax was the one who spoke first, now. He was the kid of our group, being nineteen. But he likes his textbooks pretty well, and he's got most

* That is what pure neutronium is. Neutronium, the Star Metal, scarcely more than a hypothetical myth for hundreds of years. An echo from the dwarf suns of terrific mass, far out in the interstellar void. Up to now, even great Earthly scientists had known of this Hercules of all elements only as a minute fraction, hidden in a black powder of baser substances which they scraped from their transmutation furnaces.—Ep.

of the rules of physics down pat.

"The metal this shell of Sarker's is made of, couldn't be *pure* neutroium," he said unsteadily, awe blanching most of the pinkness out of his cheeks. "If it were, it would be so heavy that it would probably sink right down through all the rocks and everything, to the center of the Earth. It must be an alloy of the Star Metal. But even at that, I'll bet a year's pay that Sarker's capsule, here, weighs a hundred thousand tons, though it's only seven feet high! Look at the base it rests on—massive enough to hold up a mountain. . . ."

"Uhuh," I agreed, nodding. "Kotah found a way to transmute lesser substances here, into the real McCoy, on a practical scale. Moreover, somehow, he was able to work his alloy—fashion it into shape—inconceivably hard though it is. Well, Kotah's dead, now; and inside the shell he made is our arch-outlaw, apparently trying to pull some kind of gag on us. What would you call it exactly? Passive resistance?"

Yes, Clay Sarker's motive was shaping up dimly in our minds. But we were still somewhat confused. We didn't grasp all of his scheme, yet.

JUST about when I finished my little spiel, three men in civilian garb, entered the cave. Newscast reporters, I figured.

But Commander Harlow wouldn't talk to them. He had too many troubles of his own, to bother. I could see that he was somewhat doubtful and worried, but he tried to put up an optimistic front.

"So Sarker wants to sit this one out, does he?" he growled with Satanic humor. "Well, maybe that isn't such a bad idea, even from our angle. Solitary confinement in a heat-proof, sound-

proof, police-proof cell, made according to his own specifications! What a beautiful life! And when he does come out, after his food is used up—if he *has* a way of coming out—we'll nab him!"

Chief's grim humor would have been good—except that we all sensed some missing, unpleasant factor. Our bad-man wouldn't have gone to all the trouble of sealing himself in an impenetrable shell, if he expected the police to get him in the end. He must have a loophole somewhere! As it developed, that loophole was about to be revealed.

One of the civilians who had just entered the cave, spoke up. He had a ratty, wrinkled sort of face, and a smooth way of talking.

"Commander Harlow," he said. "I came here, not be ignored, but to remind you of a very important fact. Even the accused have rights. To avoid the injustice of long pre-judiciary imprisonment, interplanetary law states firmly that a prisoner must be brought to trial and either condemned or acquitted within a period of sixty Terrestrial days after capture. Failure of judicial authorities to carry out this law, sets the accused at liberty, at the end of the specified time. Do you understand me, Commander Harlow? I am Fred Bixby, Clay Sarker's attorney. . . ."

Harlow controlled his anger, and took a moment to think carefully before he responded. "Isn't it evident to you, slr," he said at last in a calm tone, "that we haven't caught Clay Sarker yet?"

Bixby fairly leaped at this quiet question with all the dramatic force and accuracy of the shrewd shyster he was. "That, Commander Harlow," he sapped gleefully, "is a point-blank contradiction of truth! Thirty-one minutes ago, you officially reported Sarker's capture to Police Headquarters in Chicago, by radio. Rocketing here immediately from Oklahoma City in the interests of

my client, I even heard the report being made public on the general broadcast. The whole world is now my witness of truth! Clay Sarker is now *legally* your prisoner! But I warn you, Commander Harlow, that if my client is not tried entirely within his rights, and within the sixty days set forth in the codes, he shall then be free and unaccused!"

Sure! I saw practically all of the whole magnificent setup, now. Before we could try Sarker, we'd have to get him out of his neutron shell. How could he appear in court otherwise—to be questioned and to answer, according to rigid legal principles? Certainly he couldn't do so from inside a tremendous casing, which not even the faintest whisper of sound could penetrate!

Neutronium! The word itself suggested an invincible barrier. Then, there was that technicality of the law, in which we were caught. Changes in legal codes are hard to make, and require much time and effort. And Bixby, who must have been in on Sarker's scheme for months, had come here, now, to do what he could to weaken our confidence, and to spoil what slender chances we had of finally bringing a blackguard to justice.

With a poisonous politeness, he said goodbye to Commander Harlow, and stalked out of the cave. A moment later his rocket-plane roared away into the night. But we all knew that the vaunted, efficient Interplanetary Police Force, of which we were members, had taken a heavy blow below the belt.

Harlow, though, is certainly no quitter. At first he looked licked, his old body sagging. "It seemed so sure—that we had Sarker trapped," he muttered. "Just a metal shell—how was I to know that it would be so tough to break into? I got excited, and I underestimated Sarker's scientific tricks. I

reported his capture prematurely, like an old fool. I guess he must have figured I'd do that. But even if I hadn't, I suppose Bixby would have cooked up a good court argument to prove that Sarker was our prisoner, as long as we had him in the shell. . . ."

Yes, Harlow seemed defeated, but with a surge of bulldog courage, he straightened abruptly. "Listen, you newscasts reporters," he barked suddenly to our visitors—the two who had arrived at the same time as Bixby. "You can make public anything you like. But make this fact public too! We've still got sixty days to really catch and fix this yellow, murdering rat, Sarker. We'll call in the best scientists. We'll grab him out of his star metal joke-box yet! . . ."

Joke-box! It was a perfect name for that huge, glittering, unassailable egg. Somewhere in my thoughts, Clay Sarker seemed to laugh "loud and long," as he had promised.

The next few days were full of just the kind of fight that Harlow had predicted—except that hoped-for results were scant. Arthur Ellwyn and Olive Baker, and several other metallurgical experts, were enlisted to help solve our problem. First they tried to examine Kotah's apparatus there in the cave. But Sarker had ruined it all, completely. The ponderous secrets of the vats, that had made and shaped neutronium alloy, and hence might dissolve it too, had died with the tiny Venusian.

So we had to fall back on more primitive agents. Atomic explosive, the most potent of these, proved no good at all, as we suspected, even before we experimented with it in tiny quantities. We couldn't drill any sort of hole in the neutron shell, in which to place a charge, and of course against those rounded surfaces, it exploded uselessly—and nearly brought down the cavern

roof. Which obviously we didn't want.

ACID was utterly futile too. Heat, in its most violent form, we'd already tried, when Harlow had used his pistol against the shell. The tight-packed structure of that hellish metal seemed to reflect all energy. Maybe it is impossible for pure neutronium to have a true temperature—for heat is a vibration, and even this diluted alloy, firm and utterly rigid, seemed to resist all vibration completely.

One of the scientists—Baker, it was—even suggested a mighty press, a sort of titanic nut-cracker, in which to crush Sarker's refuge and bring him out. But of course the press would have to be made of steel. And steel, in relation to neutronium, is more tenuous and feeble than air in relation to the toughest metals we could produce.

"Sarker had a special tool, when he went into the shell," I told the others. "Something I suppose Kotah made for him, to cut his way out with, in the end, if we failed. I saw that tool. If we only had it, now!"

"Wishes don't do any good, young fellow," Art Ellwyn, the big metallurgist, commented. "We've tried just about everything, now. There's just one hope left. A gigantic, power-driven grinding wheel, not using futile diamond-dust as an abrasive, but a certain black powder from the transmutation furnaces. A minute part of it is neutronium—as pure a form of that devil-stuff as our science has yet achieved."

Ellwyn's grinding wheel was set up right there in Sarker's cavern. It was much easier to do this than to try to move a hundred thousand tons of ungraspably compact mass—in short, Sarker's joke-box, to some other, otherwise more convenient place.

Pressing against the shell, the big wheel began to spin, driven by its ato-

mic motors. It was neutronium scraping against neutronium now. Maybe there was a chance.

Twelve hours later the machinery was stopped, for an examination of its effects. Where the wheel had been grinding for so long, against the joke-box, there was a pathetic little flattened area, marked with parallel scratches.

"The process is working," Ellwyn said. "But it's terribly gradual. I wonder if we can hope for it to cut through the shell, even in two months? Just a tantalizing possibility, maybe."

Commander Harlow, some of the other boys, and I, took a day off, and went to New York. There was no use for us to hang around Sarker's cave. In New York, in the Space Institute, there was a small, golden casket, fairly drowned in flowers. Kotah, the tiny Venusian wizard, was lying there in state. Earth was paying him a last tribute, before they sent him back to his torrid, rainy planet, for the mysterious funeral rites of his gentle people. Kotah, perhaps the greatest scientific genius that the Solar System has ever known.

I TELL you, seeing that casket there really got me. It made me remember too much, and reminded me of too much injustice and too much horror. Those cities that had flamed and died under Sarker's bombs. And Kotah's marvelous discoveries, perverted now to criminal use—Clay Sarker sitting safe inside his neutron sphere, reading books, chuckling to himself. He wouldn't mind two months of loneliness and silence, for he was a space man—and that's the way you often have to live, in a rocket-ship out in the void.

If his scheme worked, he'd be free—free to laugh at the law he'd tricked, free to begin a new series of piracies and murders! I found the thought

fairly maddening. And Sarker hadn't killed me, when he'd had the drop on me with his heat-pistol. Maybe he'd figured that his mocking laughter, after sixty days, would be more painful to me, and more satisfying to himself, than my death! His was about the grimmest, most ironic jest that the Sun had ever looked upon.

Commander Harlow, standing at attention there beside me, as I gazed at Kotah's bier, must have been thinking much the same things that I was thinking. For suddenly he began to speak, almost to himself.

"The legislators are so slow," he muttered. "So tangled up in red tape. They can't be made to realize. The change in the law we've applied for can never be made in two months. And if Sarker is set at liberty, the chances are he'll be a far greater menace than before. For he knows some of Kotah's science, now—enough, maybe, to make deadly weapons, the like of which we've never seen. . . ."

I also felt that vague fear. "Then there's only one thing for us to do, Chief," I whispered. "If the abrasive wheel doesn't cut Sarker out of his refuge soon enough, we've got to shoot him down ourselves when he does emerge."

I, a sergeant of Interplanetary Police, spoke thus to a commander—shamelessly. But then, conditions justified murder as a last resort.

Harlow answered me without surprise, and without shame. "It would be all but impossible to accomplish, Herrodd," he said bitterly. "Bixby, Sarkers' attorney, will simply hire a plentiful guard of armed men to protect his client. Sarker, being in recognized danger of assassination, will have a perfect right to an escort. Even we would be examined for pistols."

And there Harlow and I had to leave

the situation stand.

THE hours went by, and the weeks.

The neutronium content of the abrasive on the great grinding wheel continued its tedious work gnawing at Sarker's joke box. But it became more and more apparent that the process was too gradual. The fiftieth and the fifty-ninth days came and went; still the master of all criminals was beyond our reach, and beyond trial.

On the night of the sixtieth day, Bixby, the lawyer, and thirty men with heat-guns, took over at the cave. "You're shift's finished, Harlow," Bixby said mockingly. "You and your boys can go home now, if you want to. Clay Sarker is out of your control. But we'll keep your grinder running. It may help my client to get out of the shell. . . ."

All of us police left, lost in black thoughts. But Chief Harlow, and Ellwyn, the big metallurgist, and I, came back on the morning of the sixty-third day. The radio had reported that the wheel had almost scraped through the neutronium alloy of the joke box. In Chicago, New York, London—everywhere—people were waiting restlessly and angrily for more news. One of the luridest, most sensational justice-evasion stories in the whole history of criminology, was about to come to a head.

Harlow, Ellwyn, and myself, arrived at the cave together. Chief and I struggled to keep up good fronts, showing the world that Interplanetary Police weren't yellow, even in the face of defeat. I guess even those hard guards of Bixby's appreciated our defiance, though they tossed a few cut-and-dried wise-cracks at us, as they searched us for weapons.

For more than an hour we all watched that rotating wheel. Then there was a queer little plop, and a

puff of steamy vapor. When the grinding apparatus was swung aside on its supports, a ragged-hole, about six inches across, was revealed there in the flank of the neutron shell.

It was a strange, tense moment, as everyone present there in the cave, waited to hear Clay Sarker utter his first triumphant words, from the small opening that had required more than two months to cut.

But the silence persisted as the seconds clicked by. There was only a faint wisp of steam rising from that opening, like vapor issuing from an unstoppered thermos-bottle. Through the cavern extended a gruesome, fetid smell. Something, somewhere, was wrong.

AT last Bixby edged toward the sphere, and peered inside, with a flashlight. Visibly his face greyed with horror. "Oh Gawd!" he rasped. Then he looked around wildly. His stricken gaze came to rest on Ellwyn, our scientific companion. "Come here, Mr. Ellwyn," he grated. "You know all about physics and things. Maybe you can explain this. Sarker should have been—absolutely safe. . . ."

We followed the metallurgist—Harlow and I. We got our glimpse through that jagged hole, too. The interior of the neutron shell was hot and steaming—like the inside of some huge pressure cooker. Crumpled at its bottom was Sarker's body—reddened like a boiled lobster's. In his dead right hand, outflung, was that little tool of Kotah's, meant, as I had guessed, to cut neutronium alloy. There were marks on the steamy inner walls of the shell, where Sarker had evidently tried to use it, to get free from his self-ordered prison.

Suddenly I began to feel very sick. "Did the tool—somehow—cause his death—do you think?" I rasped at Ellwyn.

Reaching into the joke box with one arm, Ellwyn had pulled the object clear—holding it in a handkerchief, for it was uncomfortably hot. Now he examined it, pressing a small button on its side. From its muzzle it ejected a steady stream of electric-like flame. Experimentally, Ellwyn held the latter against the joke box. After maybe three minutes, tiny flakes of neutronium alloy began to chip away from the latter. The scientist shrugged, shutting the tool off.

"It generates considerable heat," he said. "and undoubtedly contributed some to Sarker's bad luck. But that isn't the real point, here. I think I understand, now."

"Then tell us about it!" Harlow urged.

"Okay," Ellwyn began in a low tone. "This neutron shell, as we all found out, was impenetrable to all ordinary forms of energy, from the outside. Sarker knew that, and banked on it for his own safety. But he forgot that it would be just as impervious to energy—*generated on the inside!* A living human body produces and radiates a lot of calories of heat. That heat couldn't escape; it stayed inside the joke box, piling up as the weeks passed, creating a higher and higher temperature! Clay Sarker must have died one of the most horrible deaths imaginable—stifling and slow. Of course people can endure a pretty high temperature—far above normal blood-heat — because they sweat, cooled by evaporation. But that only made Sarker's torture more gradual and more terrible. Obviously he used this cutting-tool of Kotah's every once in a while—but as I've said, it generates plenty of heat, too, and even *its* action was slow against the neutronium alloy! Feeling the rapidly increasing temperature, every time he tried the thing out, Sarker must always

have desisted, in panic. Until he finally passed out. . . ."

ELLWYN'S voice was a hoarse, awed croak at the end. I guess we all felt queer. Clay Sarker had deserved hell all right—and had got it.

"He didn't know," Bixby rasped. "His scientific knowledge wasn't extensive enough for him to realize that he was in a trap. Stewed in his own body-heat. . . ."

Harlow nodded. "Kotah the wizard certainly knew, though," he said simply.

Yes, Kotah had known, all right! "Bad. . . . The end. . . . You see . . ." had been his dying words. Bad for Clay Sarker, he'd meant. Venusians are gentle and innoxious—but give them sufficient reason and their justice becomes fiendish. And so the man who had committed so many horrible crimes, had met his fate.

Harlow and I left the cavern of death

together. "Lucky for me and Bixby, and those guards in there, that things turned out the way they did," I said.

"What do you mean, Herrodd?"

"I couldn't have gotten into the cave with a pistol," I replied. "The guards would have found it when they searched me. But that didn't prevent me from filling the hollows inside my shoe-heels with a lot of small atomic grenades. Had Sarker emerged from the shell alive, I would have somehow chased you and Ellwyn out of the cavern. Then I would have stamped my feet, and blown Sarker and everybody connected with him, sky high."

"And yourself, also," Chief commented, grinning. "Herrodd, you and I are a couple of frustrated heroes. I wonder how we happened to think up the same idea, separately?"

Dumbfounded, I saw that he was walking very lightly, and that his heels seemed a trifle high. . . .

(Continued from page 67)

simulacrum, raising his whiskey sour.

"Although I am not a temperance man," the simulacrum said in its odd, high-pitched voice, "I seldom drink." It examined its drink dubiously, then sipped it.

"You fellows would have been on firmer ground," Barrows said, "if you'd worked out the logic of your position a little further. But it's too late to accomplish that now. I say whatever this full-size doll of yours is worth as a saleable idea, the idea of utilizing it in space exploration is worth at least as much—maybe more. So the two cancel each other out. Wouldn't you agree?" He glanced inquiringly around.

"The idea of space exploration," I said, "was the Federal Government's."

"My modification of that idea, then," Barrows said. "My point is that it's an even trade."

"I don't see what you mean, Mr. Bar-

(to be concluded)

rows," Pris said. "What is?"

"Your idea, the simulacrum that looks so much like a human being that you can't tell it from one . . . and ours, of putting it on Luna in a modern two-bedroom California ranch-style house and calling it the Edwards family."

"That was Louis' idea!" Maury exclaimed desperately. "About the Edwards family!" He gazed wildly around at me. "Wasn't it, Louis?"

"Yes," I said. At least, I thought it was. We have to get out of here, I told myself. We're being backed farther and farther against the wall.

To itself the Lincoln sipped its Tom Collins.

"How do you like that drink?" Barrows asked it.

"Flavorful. But it blurs the senses. It continued to sip, however.

That's all we need, I thought. Blurred senses!

(Continued from page 5)

of the themes and constructs which pop up in later books of his loose-limbed future history. And it is the first and only Philip K. Dick novel to be told in first-person by its protagonist.

The publication here of Gren Benford's cover-story, "Sons of Man," is also something in which I take personal pride. Greg and I are long-time friends, and we've been closely associated since I joined him as co-publisher of his fanzine, VOID, in 1959. A lot of fans have looked back upon VOID with a lot of nostalgia, and we still remember it with pride. Terry Carr joined us later as a co-editor, and we launched the Tenth Anniversary Willis Fund—one of fandom's proudest accomplishments—in VOID's pages.

Greg works full-time these days as a physicist, but he works at writing sf professionally in his spare time as well. He recently finished his first novel, a 75,000-worder, for Ace (and we'd publish it here if not for the fact that it's based on the cover-story novelette published first in *The Magazine of FANTASY & SCIENCE FICTION*), and is already thinking about a second novel, a juvenile which he has informed me he is modelling on a book of mine. It's pure coincidence that his new science column, written in collaboration with David Book (a professional colleague of Greg's at the Lawrence Radiation Laboratory), debuts in this same issue, but I think its appearance will underline one of the virtues in Greg's story: the underpinning of real scientific knowledge and informed scientific speculation. Very few new sf writers seem to understand science these days, and for that reason I'm doubly grateful for Greg. I think he's going to become an important name in our field, both for his stories and for

the column, *The Science in Science Fiction*, which should be valuable to both the readers and writers of sf. It's a relatively new approach: there is a lot of bad science in sf which doesn't belong there—and there is also a need for the translation of new scientific ideas and thinking into our field. The column will deal in debunking and informing, and in both facts and speculation, from the unique point of view of a professional scientist who is also a professional writer. I believe it to be an important addition to these pages.

It's something of a footnote to remark upon another, more modest debut, but the illustration accompanying "Sons of Man" is my first professionally published illustration. When I was but a wee tad, it was my strongest ambition to be an artist, and I trained for some ten years to be one. My earliest contributions to the fan press were illustrations, and it was only gradually that I let that ambition die in favor of the printed word. When Greg's story came in, he sent along a published photo of one of the semi-mythical Bigfeet, and I saw immediately the illustration which *had* to accompany the story. It was but the work of a moment for me to build a new drafting table, mount a lighting fixture over it, and rush out to purchase a mess of art supplies, including scratchboard, scribes, and a Windsor-Newton # 2 brush; all to restock and revive a talent (if that's what it is) which I hadn't touched in something like ten years. But that's one of the small advantages I enjoy with this magazine: the opportunity to make a decision like that and then *do* something about it. It was fun.

Speaking of art and artists, Mike Hinge made *his* debut in our sister magazine, FANTASTIC, last month, with a set

of lovely illustrations to a story I wrote. Mike is another fan-turned-pro, but most of his professional work has appeared outside the field. He hails from New Zealand, and emigrated to Los Angeles in 1958. Since then he's worked for some of the top advertising agencies in the country, and is presently back at that stand again as an art director, after a year of free-lancing. I met him several years ago, when he moved to New York, and he was one of the artists who worked on the *STELLAR* project with me. (I told the *STELLAR* story in the August issue of *FANTASTIC*.) As a matter of fact, he turned in two illustrations so beautiful that rather than let them perish with the still-born *STELLAR*, I'm having new stories written around them for publication here. In the meantime, Mike has designed all our new department heads, and I hope you're as impressed with them as I am—it's another of those fortuitous coincidences that these new heads are appearing in this, the first issue of our "new" *AMAZING STORIES*. Mike has also done the illustrations for Phil Dick's novel, and I predict you'll be seeing a lot more of him in these magazines—and possibly elsewhere, if our competition smartens up.

A couple of issues back I said we had some surprises in store for you. These are a few. More are coming. And all are designed to give you a better, more attractive, magazine for your money. Naturally, we're not doing all this strictly for the pleasure of it: we want something in return. We want something from you.

To put it simply, we want your support.

Science fiction magazines are not en-

joying good times just now. The dismal fact is that despite a general increase in the sf readership, as evidenced by book sales, sf magazines aren't selling as well now as they were ten years ago. And ten years ago they weren't selling as well as they did ten years earlier yet. The magazines—all sf magazines—have been going through a slow but inexorable decline in sales. There was a time when *AMAZING STORIES* sold around 150,000 copies of an issue. The day is apparently gone when we can sell *one third* as many copies.

A lot of reasons have been advanced to explain this decline in sales. The most obvious—but also most superficial—is that the day of the sf magazine is done, that today sf magazines are anachronisms which have outlived their usefulness. I'm not convinced of that. It may be true, but I don't believe it yet. I will believe it if when I have put out the best possible magazine I can put out the sales show no change. Then I will concede defeat. But not yet. Not now.

Another reason for slipping sales is the factor of distribution. When pulp magazines were a significant sales item, they could be found all over the country in profusion. But when the pulps died and the few individual survivors hung on in the present digest-sized format, we found ourselves orphans. Sf magazines operated from strength, when part of a giant pulp chain. But today only one sf magazine is published by a large publisher; the rest are published by small, sometimes one-man outfits, none of which have the money necessary for big promotional efforts, or the string of allied publications which might give protective strength. And since the digest-sized all-fiction magazine is a low-seller in this era of million-selling slicks, it has be-

come a marginal item for the distributor, wholesaler and newsdealer. These people pick up only pennies from the sales of sf magazines—but dollars from the sale of magazines like *MAD* and *PLAYBOY*. You can imagine where their attention is directed.

The sf magazines are also "high return" items. That is, of the X-thousand copies printed and sent to the distributors, only a percentage—and all too often, less than 50%—will be sold. The rest are "returns," and require additional handling, shipping, warehousing, etc. It's an enormous waste, and the distributors are impatient with it. So they request less copies. If they're selling only, say, 40,000 copies of a magazine, they may ask that instead of 100,000 copies they be given only 80,000 copies. That would theoretically change the percentage sold from 40% to 50%. But of course it never works that way. Because they have 20,000 copies less to ship, less are actually put on sale, and since the actual sales seem to depend on the number of copies displayed, sales fall off proportionately. This leads to an ever-tightening spiral which, if pursued, bottoms out with zero sales. It's a bad situation, and about all the small publisher can do is to tighten his belt and hope for the best.

Why am I telling *you* all this? Because you bought this magazine, you paid cash money for it and you're reading it. Therefore it follows that you are interested in it, and perhaps concerned about it. And maybe you never knew before exactly how this whole distribution-and-sales process works. Maybe you never before realized how vital a party you are to the survival of this magazine.

Because you *are* vital. You are the whole focus of *AMAZING STORIES*. Your money is what pays for the maga-

zine. Your purchase is what keeps us on the stands. When you start skipping issues, our wholesalers start cutting back their orders. When you stop buying altogether, we receive a request to cut back our print order. If all of you were to stop, we would stop. It is that simple.

The process works both ways, of course. And I really don't feel like dwelling upon the notion of an end to this, the oldest and first science fiction magazine. Let's suppose instead that you've been picking up copies of *AMAZING* on and off for the past several months or a year or two (some of you have been reading us a lot longer, of course). Sometimes you've glanced at an issue and put it back. Sometimes you've decided to buy it. Lately you've noticed the sap stirring in our pages, and you've been paying closer attention. Maybe a friend of yours told you the magazine was getting better and suggested you look at a copy. Maybe you're reading his copy right now.

You want to help? You want to support the changes we've been making in this magazine, the tangible improvements we've been introducing? It's simple. Buy us. Regularly. Buy a copy of each and every issue, for as long as you feel we're doing the job we all should be doing. (I'm not asking for charity; if you don't like the magazine, you are certainly under no obligation to contribute to its welfare.) But if you agree with me that *AMAZING STORIES* has, in its last few issues, become one of the most dynamic, most fascinating sf magazines on the stands today (I say "one of," because there's always *FANTASTIC* to be considered too—), then I want your support. Not just your letters—although they are very important—but your money. *Buy us regularly.* Suggest

us to a friend if you think he'd enjoy AMAZING. If you really want to be useful, you could even become volunteer "road men" in your local areas.

A "road man" is—or was; I think they're a dying breed—a man who checks the newstands and the sales of his company's magazines or books. Naturally, he tries to get the best display possible for those items, and when he finds a stand where one particular item sells well, he may suggest to the local wholesaler that more copies go there, while less are given to a stand where sales are poor. It's a demanding, exhausting job, and there hasn't been a road man for a science fiction magazine in years—if ever.

As a private citizen, your scope is more restricted, but when a publisher suggests that you "ask your local newsdealer for copies if he doesn't have them," he is making a concrete and valuable suggestion, for all that it has become a rather unheeded cliché these years. (Who still "reserves a copy" of the next issue with his newsdealer? Anyone?) There *are* things like that which you can do. You can, for instance, pull the copies of AMAZING and FANTASTIC out from behind the movie magazines where they've slipped, and give them more visible display. If you do it neatly, without obviously messing up the arrangement on the stand, few newsdealers (or drugstore clerks, or whatever) will complain. (If one does, point out to him that he can't sell what isn't visibly on sale.) If a stand does not carry our magazines, ask the man why. Maybe he'll order a few copies next time.

These are simple things. Naturally, if a whole town or city isn't getting copies, our publisher would like to know—and

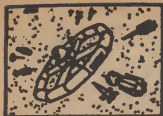
would welcome a simple letter from you stating the facts of the matter. But even if you only pull our magazines out of hiding, you've done something valuable for us.

It may seem as though you, as a private citizen, really cannot do much, faced with the massive imponderables of nationwide distribution networks and the like. But we're linked in a conspiracy, you and I. We both want AMAZING STORIES to succeed in what amounts to an indifferent or hostile marketplace. These people stand between us, but largely out of ignorance. It is, after all, entirely to their advantage to sell more copies of our magazines; it is right and proper that they make AMAZING more directly and easily accessible to you.

So here we are: the small publication and the private citizen, doing our damndest to make connections. If you can do something that will help, we'll be in your debt.

And you can be certain that if sales *do* improve, counter to all the general trends, we will thank you in the most positive way: by giving you a yet better magazine. And that's a promise.

At presstime, after the above was written and ready to be printed, we learned of the death, at 62, of Willy Ley, a pioneer in rocketry and long-time friend and associate of science fiction. It is sad indeed that his untimely death should have occurred only days before one of his great dreams—Man's landing on the Moon—could come true. The author of many fascinating science books, and long-time science columnist for GALAXY magazine, Willy Ley was a colorful story-teller and an asset to our field. He will be missed. —Ted White



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